REPORT RESUMES

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ADULT LEARNING, ADULT BASIC EDUCATION PRE-INSTITUTE SEMINAR (WAYNE STATE UNIVERSITY, MAY 1967).

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A PREINSTITUTE SEMINAR, FINANCED BY A GRANT FROM THE ADULT EDUCATION DIVISION OF THE OFFICE OF EDUCATION TO THE NATIONAL UNIVERSITY EXTENSION ASSOCIATION AND HELD AT WAYNE STATE UNIVERSITY IN MAY 1967, FOCUSED ON PLANS FOR THE 20 ADULT BASIC EDUCATION TEACHER TRAINING INSTITUTES HELD DURING THE SUMMER OF 1967. LEADERS IN ADULT BASIC EDUCATION AND RELATED DISCIPLINES JOINED WITH INSTITUTE PROGRAM DIRECTORS AND STAFF TO SHARE INFORMATION GAINED FROM ONGOING PROGRAMS AND PROVIDE SPECIALIZED TRAINING FOR ADULT EDUCATORS COORDINATING THE INSTITUTES. THE DISCUSSIONS AND DEMONSTRATIONS, REPRODUCED IN THIS DOCUMENT, CENTERED AROUND THREE MAIN AREAS OF ADULT BASIC EDUCATION DEVELOPMENT--INNOVATIONS IN CURRICULUM, TECHNOLOGY, AND MANAGEMENT. TOPICS COVERED INCLUDED PROGRAMED INSTRUCTION, TEACHING ADULTS TO READ, THE MICHIGAN LANGUAGE PROGRAM, HARDWARE SUCH AS VIDEO TAPE RECORDERS, SKILL TRAINING AT MICHIGAN BELL, THE EDUCATIONAL DEVELOPMENT LABORATORIES LEARNING SYSTEM, FEDERAL GOVERNMENT ROLE IN ADULT EDUCATION, THE DRAPER REHABILITATION PROJECTS, COUNSELING ADULTS, AND EFFECTIVE SMALL GROUP INSTRUCTION. (AJ)

A critical factor in de-escalating he powerful forces which perpetuate under-employment, social disorganization, poverty and despair in the midst of our affluent society.

Adult Learning

ED 019604

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Adult Learning

Adult Basic Education Pre-Institute Seminar,
Wayne State University, May 1967

Conducted By National University Extension
Association, For The Division Of Adult Educa-
tion Programs, U.S. Office Of Education

AC 002 473

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roduction

As a preliminary to the summer ult basic education training titutes, a pre-institute seminar, anced by a grant from the Adult ducation Division of the U. S. ffice of Education to the National niversity Extension Association, as held at the McGregor onference Center of Wayne State niversity, Detroit, Michigan, ay 20-27, 1967. Wayne State niversity was chosen for the minar because of the university's perience with this program in 1966, the suitability of its facilities and nationally central location. Leaders in adult basic education and related disciplines joined with institute program directors and staff associates who would be primarily responsible for the planning and instruction of the 1967 institute program. The presentations that follow were given at these pre-institute seminar sessions.

Now in its second full year, the national teacher and administrator training program funded under this grant has provided concentrated direction for 2,270 participants. There were nine institutes in 1966 and 20 in 1967. Upon completion of the summer training programs, teacher trainers, administrators and institute personnel continued to cooperate with the regional representatives of the U. S. Office of Education, university staff specialists, and state and local directors of adult

basic education to establish, enlarge and improve pre- and in-service training for local adult basic education teachers and administrators.

It is estimated that participants in the 1966 institutes, in turn, gave pre- and in-service training to an additional 10,000 to 15,000 teachers. The content and methodology of this training benefited from concepts and experiences gained at the 1966 summer institutes.

The success of the 1966 and 1967 adult basic education summer training institutes demonstrates that an accelerated national program for training teachers in adult basic education, emphasizing a broad scale application of educational technology, has proved a worthwhile experience in creative educational federalism in its application to a massive national attack on adult illiteracy.

eface

This document represents the oceedings of the 1967 Adult asic Education Pre-Institute eminar at Wayne State University. is a collection of some of the est thinking in adult basic ducation and summarizes the ontent for in-service training of dult basic education teachers. hese reports will also be used by e university resource specialists graduate programs which are— ke the national Teacher Training nstitutes—orienting more teachers oward innovations in materials, ducational technology, and anagement for adult basic ducation programs.

The conference focused upon plans for the Teacher Training Institutes held during the summer of 1967. Primarily, these institutes provided a broad dissemination of information gained from on-going adult basic education programs and presented this information to adult basic education teachers.

The institutes last year used a successful ripple effect. From region to state to local community, individuals were able to share their training experiences with many more ABE teachers. Such experiences included the latest ideas in educational technology which are useful and necessary in carrying out adult basic education programs. The 1967 Pre-Institute Seminar added another dimension to the approach —specialized training for those adult educators coordinating the 19 institutes. The entire process was a most valuable form of in-service training and its impact on the continuing adult basic education program in the states can be well documented.

Contributing to yet another phase of the ripple were the university resource specialists—

many of whom held key roles at the summer teacher training institutes. Their responsibility includes the development and expansion of graduate programs in adult education to provide additional trained personnel in this rapidly expanding field.

The training package used at the Seminar is a unique part of adult basic education in-service teacher training. The participants had an opportunity to personally operate the products of modern educational technology including video-tape recorders and computer-assisted and programed instructional materials. Visits to project sites in Detroit were also part of the practicum and allowed observations which are not possible in lecture sessions.

Initial feedback on several of the teacher training institutes shows the innovative utilization of the staff associates—a concept introduced at the Pre-Institute Seminar.

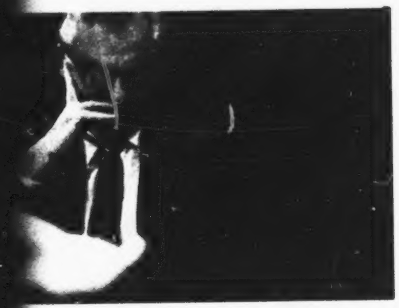
The success of any venture can only be measured by the people who contributed. I would, therefore, like to thank all those persons—the speakers, the participants at the Seminar, the staffs of the U. S. Office of Education, National University Extension Association, National Association of Public School Adult Education, and Wayne State University—for their help in organizing the Seminar.

The field of adult basic education is rapidly growing, and it is through our cooperative efforts

t we will be able to reach the dereducated and disadvantaged pulation in our country today. s, by no means, an easy task. t I feel confident that we can cept the challenge that lies ahead.

Welcome Address

Wayne State University is honored to be selected as host for the Pre-Institute Seminar on Adult Basic Education. This University, located in the nation's fifth largest city, is truly an urban university. Founded and administered by the Detroit Board of Education in its early years, it completed a transition to a state university ten years ago—making it now one of the "big three" in higher education in Michigan; the other two, of course, being The University of Michigan and Michigan State University.



The role of an urban university will be witnessed by you while you are here. In fact, you are forcing the relocation of some people who are coming here on Tuesday to discuss the role of the urban university in the urban society. The glares that you receive are rightfully earned. This is a busy and exciting university. You will be part of it for the next few days.

You will have an opportunity to study in a beautiful educational building. Designed by Minoru Yamasaki, one of America's great architects, this Conference Center has been described as the jewel of Detroit. In a recent public competition to select beautiful buildings in the city, it was judged the winner.

I wish to pay tribute to the persons on our extension staff who will make every effort to see that your stay in our city is a pleasant one. First, Dr. Harvey Hershey, who is director of the seminar, and who will be joining us on a full-time basis on July 1, 1967, as a specialist in adult basic education under a grant from the National University Extension Association. Cooperating with Dr. Hershey will be Dr. Benjamin Jordan, director of the Off-Campus Credit Programs for the Division of Urban Extension. Mr. John Fraser and his staff of the McGregor Memorial Conference Center will be responsible for your housing and living arrangements.

It was necessary to organize this Seminar on short notice and it is these three men and their staffs who have cooperated in preparing for your stay with us.

Iay I mention for a moment
gratification of the University
l its Division of Urban
tension, which I head, in working
h the U.S. Office of Education
l the National University
tension Association in this
e-Institute Seminar. This is a
ationship which shows the
ectiveness of teamwork in
gher education. It is merging the
ents of our faculty with the
mmunity—local and national.

The importance of this issue to all of us is illustrated by the following statistics. Eleven million of our fellow Americans, 18 years of age or older, are functionally illiterate. Of the 30,000,000 young people who will be seeking jobs in this decade, two million will not have seen the inside of a high school, seven million or nearly one-fourth will not have finished high school. What you learn here to help solve this national problem is most important.

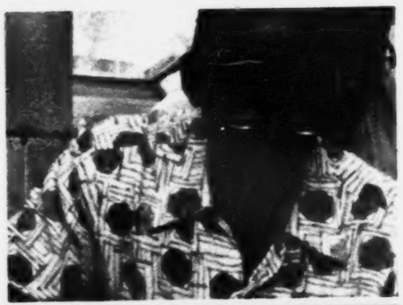
Finally, we are indebted to you, the attendees, who are in positions of leadership in your home communities and who have given of your time to be with us in what we hope is a truly valuable learning experience.

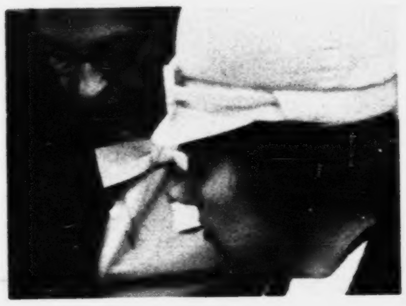
Hamilton Stillwell
Dean
Division of Urban Extension
Wayne State University

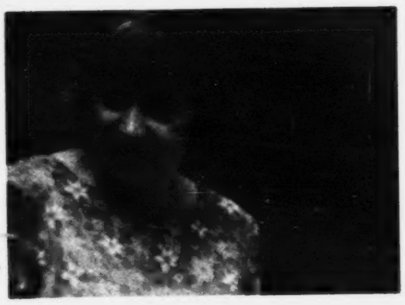
NAPSAE's Role

The National Association for Public School Adult Education is delighted to cooperate again this year with the U.S. Office of Education and with the National University Extension Association in planning, promoting, and sponsoring adult basic education training experiences on university campuses. In view of the great amount of activity which has taken place recently in the field of adult education, it seems almost inconceivable that the first three regional adult basic education institutes were held just two summers ago. It was in April of 1965 that our Association called together a nationally representative group of adult educators to assess the most pressing needs in the then emerging field of federally-subsidized adult basic education.

At that April 1965 meeting at the National Education Association headquarters in Washington, the message came through clearly and

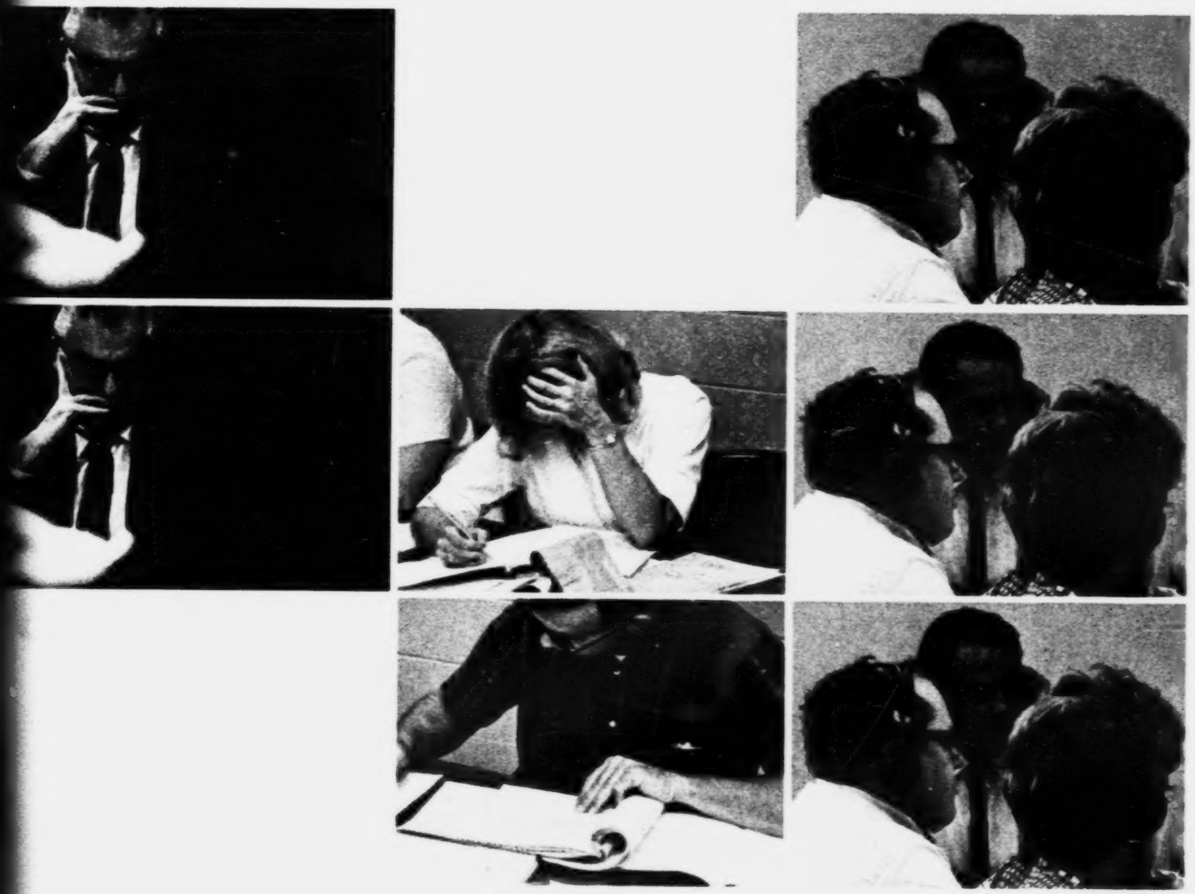






convincingly that the most urgent need was for the training of teachers and teacher trainers. The three institutes which were held in the summer of 1965 at the University of New Mexico, the University of Maryland, and the University of Washington were inanced through a grant from the Ford Foundation with the understanding that this was but a stopgap approach prior to the inclusion of funds for this purpose in federal legislation. From NAPSAE's viewpoint—and from the viewpoint of many people in the field of adult education—one of the most fruitful results of the first three workshops was the publication by NAPSAE during the following year of the text, *Adult Basic Education: A Guide for Teachers and Teacher Trainers.*

Many of you here have been involved in adult education during the past several years. Most of you know that last summer there were nine training institutes in adult basic education and that this summer there will be nineteen institutes financed under provisions of the Adult Education Act of 1966. With the reorganization of the U.S. Office of Education, and under the direction of Grant Venn, Jules Pagano, Derek Nunney and their respective staffs, the entire



field of adult education has moved ahead. A most important administrative management function has been and is being fulfilled by the National University Extension Association under the leadership of Bob Pitchell. We are pleased and proud to be a part of the USOE-NUEA-NAPSAE troika.

For those of you who will be involved in the first institutes designed specifically for administrators, our Association has prepared a series of case studies and guidelines which we hope will be of interest to you. We ask you to use these materials, to be critical of them and to let us know how they might be improved. Our Association is being retained by National University Extension Association in a consulting capacity on a year-round basis. We are actively seeking ways in which our consulting contribution can become an increasingly meaningful one.

Since our founding in 1952, we have been a department of the National Education Association and its Division of Adult Education Service. With National Education Association membership in excess of 1,000,000 and with our own Association having more than 6,000 members, we are proud to serve as the professional voice of the public school adult education movement in this country. You represent an important part of our constituency. Through your participation in this pre-institute seminar and through your future participation in the nineteen

titutes to be held this summer, u are serving the profession in highest sense. We pledge to you t we will continue to promote cause of public school adult ucation throughout the United tes in our publications, in our mbership services and in an gressive legislative program. We sh you well this week and in the exciting summer experiences which you have ahead of you, and we commend you for your adult education commitment as evidenced by your presence here in Detroit today.

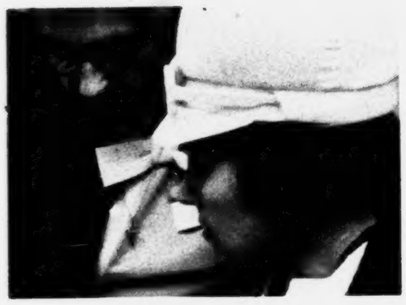
James R. Dorland
Associate Executive Secretary
National Association for Public
School Adult Education

Acknowledgements

The United States Office of Education, National University Extension Association and Wayne State University wish to thank the following persons for their contribution to the success of the Adult Basic Education Pre-Institute Seminar held at Wayne State University on May 20-27, 1967.

Credit for the preparation and organization of the seminar goes to: Jules Pagano, Derek Nunney, Hy Hoffman and Mil Lieberthal of the United States Office of Education; Robert Pitchell, Lynn Mack and Gerald Foster of National University Extension Association; Hamilton Stillwell, Benjamin Jordan, Joseph Hill, Ernest Chiakmakis and John D. Fraser of Wayne State University; and Harvey Hershey of the Michigan State Department of Education who was coordinator of the Seminar.

Additionally, acknowledgement is made to those persons, too numerous to list individually, who demonstrated techniques, who contributed to reaction and discussion groups, and who shared their own professional experiences.



nnovations in Curriculum

Since the discussions and demonstrations of the pre-institute seminar covered three main areas of recent developments in ABE, the papers that comprise this report do not follow the order of their presentation.

Therefore, this publication is divided into three sections—Innovations in Curriculum, Innovations in Technology, Innovations in Management.

This first section begins with an overall look at the ABE program and its objectives. Then various approaches to curriculum for adults are explored. Included are the use of programed instruction, application of new curriculum techniques in a learning center, and explanations of materials in curriculum design.

Adult Basic Education... The Challenge

Presentation by Derek N. Nunney

We are concerned at this conference with increasing the efficiency and effectiveness of learning for the ABE student. The illiterate man could survive in the 19th century by use of muscle power but will be unable to support himself in the 1970's where the prime requirement for survival will be brain power. As the demand for well-educated, skilled manpower rapidly increases, job opportunities for the undereducated adult decline. It has been said that "the American economy was built around the railroads in the last half of the 19th century, around the automobile in the first two-thirds of this century, and will be built around education in the balance of this century."

We have 24 million people with less than an eighth grade education plus untotaled numbers who are functionally illiterate—who cannot read at a fifth grade level no matter how many years of school they have completed. This national problem is compounded by a rapidly changing economy, by automation, by the fact that in 1975 there will be few additional unskilled jobs for those with educational handicaps.

The specific problem is described on the following page. There are approximately 3 million adults, age 18 and over, in this country who have had no formal school experience. (This number is rapidly diminishing but still represents a part of the target population of ABE.) There are 11 million adults who have completed five grades or less; 24 million with eight grades or less; and 56 million with less than 12 years of school completed. (See Figure 3).

That is a formidable target population and a tremendous challenge and responsibility. The immediate concern of ABE are those 24 million with eight or less years in school completed. Who are they? They are the young adults who are dropping out of school. They are the adults who dropped out or were forced out of school during the depression years and whose basic skills grew less and less in an era of development which did not have time to worry about reading and writing—but only about working and eating. They are the elderly who were in school during the very early part of this century when reading and writing were nice but non-essential—when horsepower and muscle power were the mode. They are the educationally handicapped who are prevented from functioning to their own satisfaction in a world to which they want to belong.

I want to challenge you today with some ideas about education and learning which you may not be willing to accept. One is the misconception we labor under concerning the relevance of the normal curve.

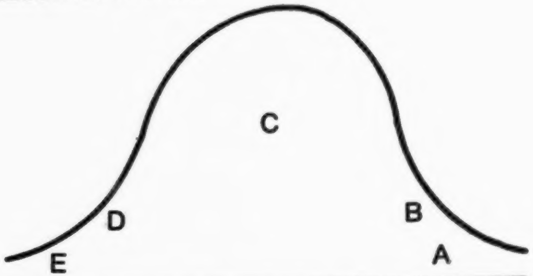


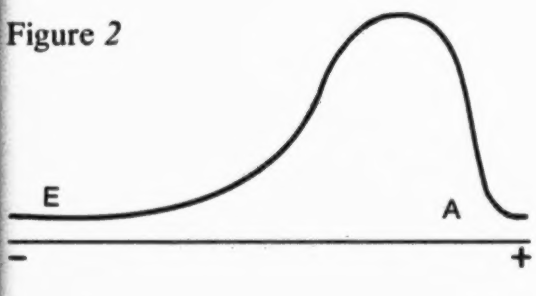
Figure 1

The normal curve was intended as a descriptive tool, and it is fine for showing how many people will be very short, how many of average height, and how many overly tall. However, it inhibits the learning progress of students when a teacher believes it predicts how his students will learn. For example, you are geared to the standard that reading levels are raised one grade for each year of instruction—roughly 150 hours. But it has been found that some adults with adult motivations can improve their reading ability one grade level for every 50 hours of study. Believing in the normal curve, a teacher might not want to accept this fact.

A teacher may be so accustomed to expecting a few pupils to learn to read at a faster rate and a certain number to be unable to learn to read at any rate and most to raise their reading level at an average rate that he may not recognize the learning potential in each of his students. That's the normal curve expectation. It is teacher oriented, not learner oriented. And who needs to learn to read and write—the teacher or the learner? The normal curve doesn't consider the individual and his ability to learn. It has been taken far too seriously in education.

Here is another curve—skewed—which presents a different approach to learning:

Figure 2

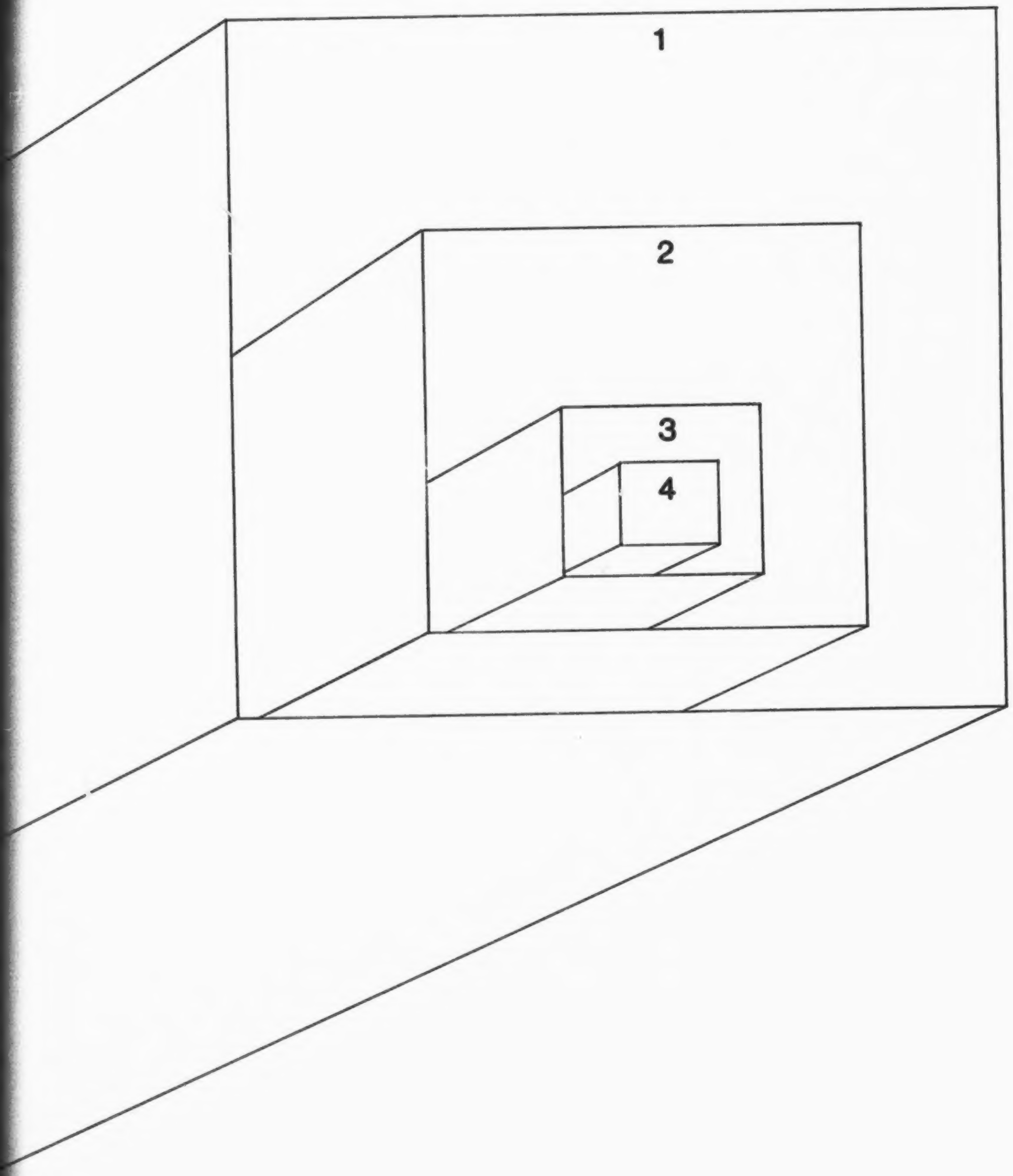


It is based on Jerome Bruner's hypothesis that any person can learn anything at any stage in his development if an intellectually honest method is used. It shows a large group who can and do achieve very well and offers mobility for anyone who hasn't yet achieved. It refutes the normal curve concept as applied to learning. We could parry all day with that phrase "intellectually honest method." In fact, we do. Adult basic education is seeking for every person that method which will help him learn at his fastest individual rate.

Adults need reading skills on an immediate basis. They enroll in the program because they want a job, they want to follow their children's progress in school, they want to be functioning citizens. ABE loses impact when teaching methods hold a learner to the traditional mold in which he may already have failed as a young person in school. The resulting situation causes dropouts from the program and points out the need for more efficient learning-to-read methods for adult learners. That's one of the things our national teacher training program is all about—that's why we are here today.

Decisions about what is to happen in education are made every day. The question for us in adult basic education is: Are we going to let decisions be made for our program or are we going to make those decisions ourselves?

RELATIONSHIP OF POPULATIONS
U.S. ADULTS
AGES 81 AND OVER



1 120,000,000
TOTAL ADULT U.S. POPULATION
1960 CENSUS 18 AND OVER

2 ?
FUNCTIONALLY INADEQUATE—
NUMBER UNKNOWN
COMPLETION OF MORE THAN
8 GRADES BUT FUNCTION AT
LESS THAN 8TH GRADE LEVEL

3 24,000,000
EDUCATIONALLY DISADVANTAGED
POPULATION LESS THAN 8TH GRADE

4 11,000,000
EDUCATIONALLY DISADVANTAGED
POPULATION LESS THAN 5TH GRADE

igure 3

I'd like to illustrate the kinds of choices we have and the direction in which our program can be developed by looking at the changes which have occurred in transportation during the last 50 years.

Before this century, travel from the east to the west coast took months by horse or wagon. With the railroad, a revolution occurred. People could get to California in 12 days, and this was improved until railroad passage required only five days. Then the airplane came along cutting travel time to 12 hours, then five hours, from coast to coast. Today we have a choice of routes—short by jet, long by train—to arrive at a desired destination. We will soon have a choice of supersonic transport which may take as little as 1½ hours to cross the country.

Education has passed through a similar transformation.

The regular school system has been geared to accepting a child, and in 12 years turning out a young adult with basic skills to support his adult life. Now, research—and reality—tell us that our system can be changed to increase the speed of learning.

Individualized instruction is an example. In five years a person can achieve in reading and writing as much as he used to in 12 years of regular school. Even shorter, more efficient materials and methods are being developed. Our program needs them. A man who needs a job can't wait five years to be able to feed his family. As the school turns out or turns off students, where are they to go, what can they do in today's world without basic skills?

ABE faces the problem of the functional illiterate aware of the situation and the system which has caused it. The mandate is to bring about learning which will put more people into the mainstream of our society and economy. It's a big job—and the methods, the approaches, the techniques for adult basic education are not to be found in a formal classroom. They will be found in the fertile minds of teacher-innovators across the country and, most of all, through that action they promote when an adult student struggles to write his name for the first time on a voter registration card or passes a job interview with flying colors.

Dr. Derek N. Nunney is Director, Adult Basic Education Program, U. S. Office of Education. His experience includes Job Corps and Peace Corps training programs. He has been Associate Professor, Educational and Clinical Psychology, Wayne State University.

The Programed Learning Center at Macomb

Presentation by Florence Striph

In the next 30 minutes, I am going to attempt to put in capsule form some of the more important points of my program at Macomb County Community College. For those of you who visited the Programed Learning Center at Macomb, this will be a quick review. I hope to make the presentation of sufficient depth, however, so as to give those of you who did not have the opportunity to visit some information which will be of realistic value.

To be certain that we are all together, and especially for those who did not visit the Center, let me quickly review my background and experience so that you will know whereof I speak. I have found, as a result of many presentations, that my background and experience is of particular interest to the listener when they begin to weigh some of my statements.

I am a certified teacher, and have taught at the elementary, secondary, and post secondary levels. My academic background has been particularly helpful in that I attended both the College of Pharmacy and the College of Education at Wayne State University. I have majors in Mathematics and Science and minors in English and Social Studies. I have been 15 years in education and have taught in schools for the gifted, schools for the culturally deprived, regular public schools, and the community college. My lectures and workshops have brought me into close contact with university, government, industrial and publishing projects.

I have worked with all ages and types of students, many of whom would be comparable to yours.

During the three years in which I directed the project in Garden City, the students involved were regular classroom students; some were "sit-in dropouts" (they are there—no trouble—but they just sit and fail until they get too big for the chair), and some were returned dropouts. During the second year of the project the high school participated in the Federal program for return dropouts. By the end of the first semester, the high school had lost over 80% of those dropouts who had returned *except for those who were involved in the programed learning project*. We retained 100% of ours over the 3 years, except for those who graduated.

I am not here to promote the idea that programed learning is the panacea for all of education's ills, or to sell any particular programs. Programed learning centers as a group are not unique. The purchase of a good program plus a good teacher does *not* mean effective teaching will take place or guarantee learning. The essential ingredients to success, which we have established and tested both in the public schools and in the colleges, *and* what makes the Center at Macomb unique, are the methods of selection and utilization.

From the Garden City project I have statistics, student records, etc. which indicated results so good that I became nervous—something had to be wrong—but nothing *was* wrong and the success has continued.

Remember, I am not talking about results from using programs with 5 or 6 students for a brief period of time, or from using 1 or 2 programs for a year or so. I'm talking about 1900 students per year for 3 years in the public schools and the results from 3000 students at the community college level during this school year, involving over 830 programs at all levels K-14, in all subject areas. No pie in the sky—these are students like yours. A large percentage of students involved at the community college are in training, apprenticeship programs, continuing education programs. They are people who read from grade 0 to 2-2. Their arithmetical computation skills are about the same.

Now let's come back to that which makes the difference. The formula is: appropriate programs, that is, programs that are *accurate*, that have reading levels *compatible with the students*, interest levels that *teach the desired objectives*, plus *teachers who have received special training* in the selection, utilization and implementation of programs. This combination will achieve success by utilizing programs as one effective technique to close the instructional loop.

The following selection criteria for materials and teacher training techniques make it possible to put together a *real program of learning on a highly individualized basis:*

a. Is the program accurate? There are many programs by reputable publishers on the market that are not accurate.

b. Is the program in agreement with your existing curriculum?

c. Are the interest and reading levels of the program compatible with your students? A program written and tested in a completely different community might not be effective with the students in your locale.

d. How much emphasis is given to various topics?

e. Are the learning objectives clearly stated and can they be identified?

f. How was the program developed? What is its history? Where was it tried out and with what kind and how many pupils? How were these pupils similar to your pupils? How was it revised?

g. What was the source of the program's content?

h. What are the qualifications of the author?

i. Is there any test data indicating gains in achievement produced by the program and the time involved?

The teacher training techniques employed are as follows:

The teacher comes to the Center. He states that his students in let's say—Auto Repair—need help in arithmetic and possibly several other areas.

My first step with the instructor will be to go over the course outline, texts and materials being used. We will develop behavioral objectives that we can measure for each unit in the course. (Avoid "define . . . ." or be able to explain to whose satisfaction.)

I will then discuss with the instructor the specific problems of his students, as he has recognized them before testing. I will be concerned with a student's reading and arithmetical competency, his ability to follow on-the-job directions.

Following this step, I, or one of my staff, will go to the classroom, or the students will be sent to the Center, whichever is more convenient, for a diagnostic pretest for entry skills. No matter how good a program might be, or at what level, the student has to have some skills to start. For example: If a student is not reading at all, we would use the California Test Bureau or the Scholastic Testing Service. If the student is able to read, we perhaps would use the Wide Range Achievement Test.

Following the testing, my staff corrects the test and we provide the instructor and each student with a diagnostic analysis. (Depending on what information is pertinent to the instructor for the purpose of improving his student's proficiency, we may utilize reading, spelling, arithmetical computation, mechanical abilities, and/or interest level diagnostic instruments.)

I will then meet with the instructor, have a profile on each student, and have identified a specific program(s) for each student which is concurrent with other materials used in regular classroom teaching and/or enrichment experiences. I will explain to the instructor what these programs teach, which topics receive emphasis, etc.

The instructor will then select one or more program(s), evaluate them and decide which one(s) to use. I go into the classroom to introduce the programs and programed instruction to the students.

Periodic follow-up meetings will be held with the instructor, checking on the student's progress, and providing assistance as needed.

The instructor and I may agree to have the students assigned to the Center to work their program(s).

The key is: Whoever is working with students has employed that program beforehand.

In planning sessions with instructors we go into such items as how a program is to be used, its efficiency, how much time should be given to programing, and how much to related activities which involve the entire group and provide "group cohesiveness." It is essential that students' activities be related so that they have the opportunity to demonstrate their newly acquired skills in discussions, lab situations, etc.

Programed instruction allows the student to proceed at his own pace—but it is not a crutch for a weak teacher.

If the student is working in the Center and at home, it is important that the instructor, the student and the Programed Learning Center person work closely together so that the classroom *instructor and class activities* correspond with the students' programing experiences.

The classroom instructor and I plan continual evaluative techniques so that the student does not have to wait for a final exam to know whether he is learning, and to measure progress more closely as we near our final goal.

Pre and post tests may take the form of written responses, oral responses, demonstrations, or combinations of these three.

I am aware that what I have been describing sounds involved, but then, good teaching is involved. If anyone has the idea that one can give out programs and then take a long coffee break, forget it.

Programs are not crutches for weak teachers. They are sound instructional aids to be used by a competent teacher who knows his students and has determined his educational objectives.

The effective utilization of programs requires the same intelligent consideration that one should give any other instructional tool.

Mrs. Florence D. Striph's sixteen years in education covers a varied background of teaching. She has also served as consultant to universities, public school districts, the Job Corps and World Book Encyclopedia.

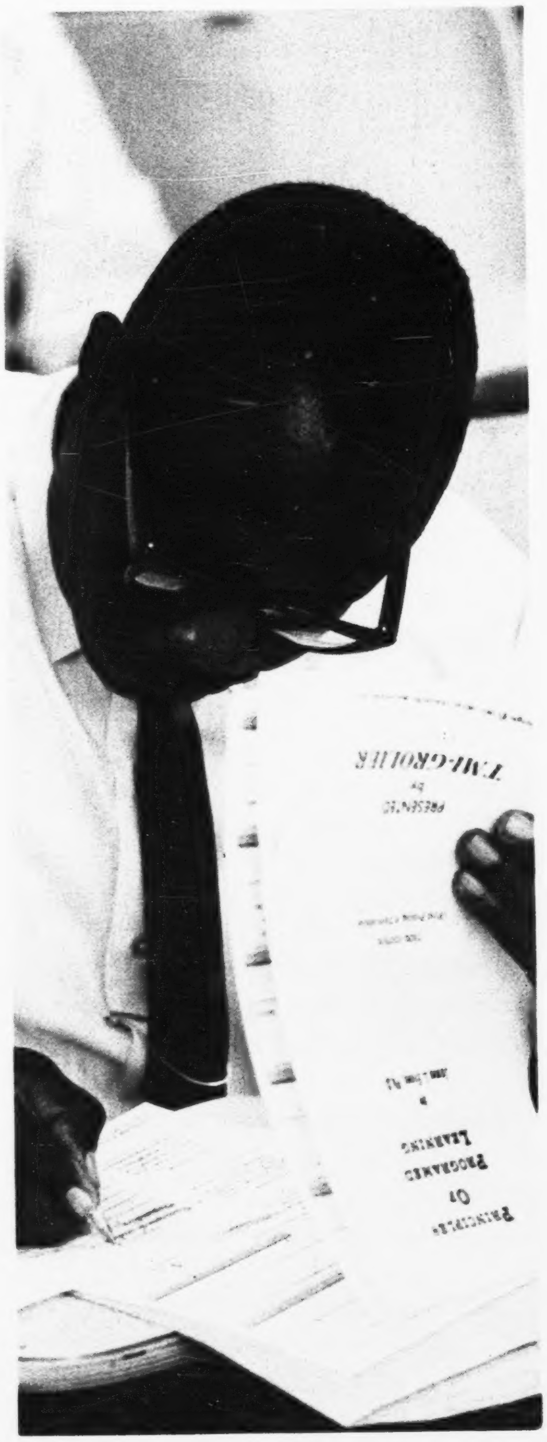
Programed Instruction–A Teaching Tool

Presentation by Carl Powers

Programed instruction gained nationwide attention around 1960. Since then it has caused educators to do some serious thinking on the merits of the technique and, even more important, the feasibility of a self-instructional approach based on each learner's individual learning capabilities. The technique of programed instruction has been used in many areas of education and industry. Statistics are available to substantiate its effectiveness as an instructional tool.

But it is only a *tool.* Thus, it must be employed properly, and only when its use can be more effective than some other approach. It can be used effectively in adult basic education, but its implementation and ultimate success is contingent on the know-how of the teachers and administrators who perceive its potential.

As an instructional tool it can no longer be ignored, and therefore, it should take its rightful place among all the other elements of instructional technology being applied in adult basic education. Thus, the intent of this and subsequent sessions is to explain programed instruction to adult basic education teachers, point out its advantages and disadvantages, show how it can be assessed, where it should be used, and, finally, offer an inside approach on how Programed Instruction programs are developed. The purpose of this presentation is not to prepare adult basic education teachers to be programers, but to depict the various steps which comprise the developmental elements of any good course that evolves from the *programing of instruction.*



The student knows immediately whether he is right or wrong, and then either reviews the lesson or goes ahead.

Programed Instruction	*Classroom Instruction*
1. Training is individualized.	1. Training is given as a group.
2. Each teaching point is mastered before introduction of the next point.	2. Due to group training there is no assurance each individual fully masters each point.
3. Instruction aimed at a given objective and student cannot deviate from subject matter.	3. Irrelevant questions tend to deviate from subject matter.
4. Through drill and responding the student takes an active part in what is being taught.	4. Because of shortage of time and size of class, a student cannot always participate.
5. Correct answers are provided immediately.	5. Days, sometimes weeks, may go by before student knows if he is right or wrong.
6. Course is standardized and all students are taught the same.	6. Quality and quantity of instruction is dependent on the individual instructor.
7. Training is more effective through small steps, controlled sequence, repetition, and participation.	7. Instruction is less effective; repetition, participation, small steps, and controlled sequence are not assured.
8. Training period is shortened due to more effective training and elimination of irrelevant materials and questions.	8. The same amount of subject matter would require longer instruction time to provide equal effectiveness.
9. Student works at his own rate of comprehension irrespective of background and experience.	9. Instruction geared to average of students based on level of background and experience.
10. Instructor is not required and course can be given any time and in any place.	10. Qualified instructor and sufficient class number are necessary.
11. Due to more effective training, individual is productive sooner.	11. Lack of participation and insufficient time yields a poorly trained student.

Disadvantages

1. Cost:
   Based on an average commercial cost, one Programmed Instruction book (600 frames) costs in excess of $6,000, if the programer wishes to publish and distribute his own material.
2. Audience:
   Programed instruction may not be the proper approach for the type of audience being taught.
3. Course Materials:
   Subject matter may not be conductive to programing and may not lend itself to being taught through programed instruction.
4. Size:
   The volume of course material to be taught may make the text of the program so large that the student becomes tired and bored.
5. Administration:
   Since students use programed instruction on a self-instructional basis, it is difficult to administer it and particularly difficult to give tests on a group basis.
6. Programed Instruction Construction:
   The way the program is constructed may not be acceptable to the student. There are some students who will not do a Programed Instruction program.

7. Use—Situation, Conditions:
   The Programed Instruction technique must be employed in areas in which it will be the most effective and when it is used, it must be given in a location which is free of noise and free of interruptions, due to the need for high concentration.

Evaluation of Programed Instruction

1. Internal:
   Refers to features that can be revealed through visual inspection.

   a. Content:
      Does the content meet the educator's objectives?

   b. Program Construction:
      Is it a type of format acceptable to the student?
      Are certain frames or items too difficult or too easy?
      Does the program require too much writing for the level of the student?

2. External:
   Refers to features which cannot be observed merely by inspecting the program.

   a. Source:
      What is the validity of the content?
      What is the original source of the content?

   b. Author Qualifications:
      What is his background in Programed Instruction and the subject materials?
      Has he written P. I. programs before?
      What is his academic background?

      Did he use subject matter experts, and if so, what were their qualifications?

   c. History and Development:
      What were the stages of development of the program?
      How did the program originate?
      How was the subject content analyzed?

   d. Tryouts and Revision:
      How many times was the program tried out?
      Was a revision made after each tryout?
      Was an item analysis made after each tryout?
      How was each revision made?

   e. Test Data:
      Is test data available?
      What was the mean of the test scores?
      What types of tests were given?
      Were the tests valid?

Summary

Based on the information covered, programed instruction can play a major role in the Adult Basic Education program. Through the consideration of this information and other information which may be added as each teacher becomes involved in the use of the technique, programed instruction can be applied to many areas of adult basic education and can become an effective tool in meeting established objectives.

Programed instruction is a powerful instructional tool but its application is a matter of decision on the part of each teacher. Investigate and try it out because this is the only way the technique can really be judged.

Mr. Carl Powers is CAI Coordinator and Systems Research Analyst in the Office of Instructional Research at Wayne State University. He also served as a staff member at 1966 and 1967 ABE Institutes.

Establishing Instructional Objectives

Presentation by W. James Popham

It has been recognized that an instructional device is needed which illustrates the decision-making process that the teacher engages in before and after instruction. It has been argued that the teacher trainer can have more influence over the instructional decisions that a prospective adult educator will make than over some of the peculiar habits a teacher will exhibit once he is in the classroom. The model presented was a planning and assessment scheme rather than an actual "teaching procedures" model and its major elements were explicated.

The device employs four deceptively simple components. First, objectives of instruction are specified in terms of post-instruction learner behavior. Second, the student's present competence is determined with respect to these instructional objectives. Third, activities for the teacher and student are selected in order to achieve the stated objectives. Fourth, the learner's attainment of the objectives is evaluated.

(The following describes how the subject "Establishing Instructional Objectives" was handled at the Wayne State University pre-institute seminar.)

Considerable attention was given to specifying the instructional objectives. On the basis of a pretest the participants at the pre-institute seminar were separated into three groups, depending upon their understanding of how to prepare instructional objectives. One group received a basic introductory filmstrip-tape demonstrating how instructional objectives should be prepared. The second group received a more advanced program on the same general topic which focused on the selection of appropriate educational objectives. The third group went into more advanced analysis regarding the specification of instructional objectives. All participants then reassembled for a discussion regarding the general topic of objectives.

Teaching adults requires new attitudes, new habits, and new techniques. ABE teachers attend classes especially to learn them.

Finally, a tape-slide presentation dealing with educational criteria was viewed by all participants. This stressed the importance of being on the alert for new ideas for educational objectives. An eight-classification scheme for categorizing criteria was explicated in the tape-slide. A post-test based on the entire program revealed considerable achievement on the part of participants.

Dr. W. James Popham, as Associate Professor of Education at the University of California at Los Angeles directs the Product Research Training Program. He is also a staff member of the Southwest Regional Laboratory for Educational Research and Development.

Teaching Adults to Read

Presentation by Allen D. Calvin

Some time ago, almost ten years to be exact, the Carnegie Foundation asked Dr. M. W. Sullivan and myself to see if we could apply the principles of programed instruction to the learning of languages. Dr. Sullivan is a linguist, with his doctorate from the University of Madrid, and I am an experimental psychologist with a background in learning theory. The Carnegie Foundation felt that if we were successful, we could produce results that would have direct application to the classroom situation. After many years of developmental testing with more than 200,000 students, Dr. Sullivan and his associates have produced the programed reading materials which have revolutionized the teaching of adult literacy.

Before discussing the Sullivan Behavioral Research Laboratories materials in detail, it will be instructive to adumbrate the conventional way that we now teach adults to read. There are basically two conventional methods employed: (1) the so-called "look-say" or "configurational" method, typified by the Dick and Jane type materials and (2) the "phonics" approach. Very often a combination of these two methods is used.

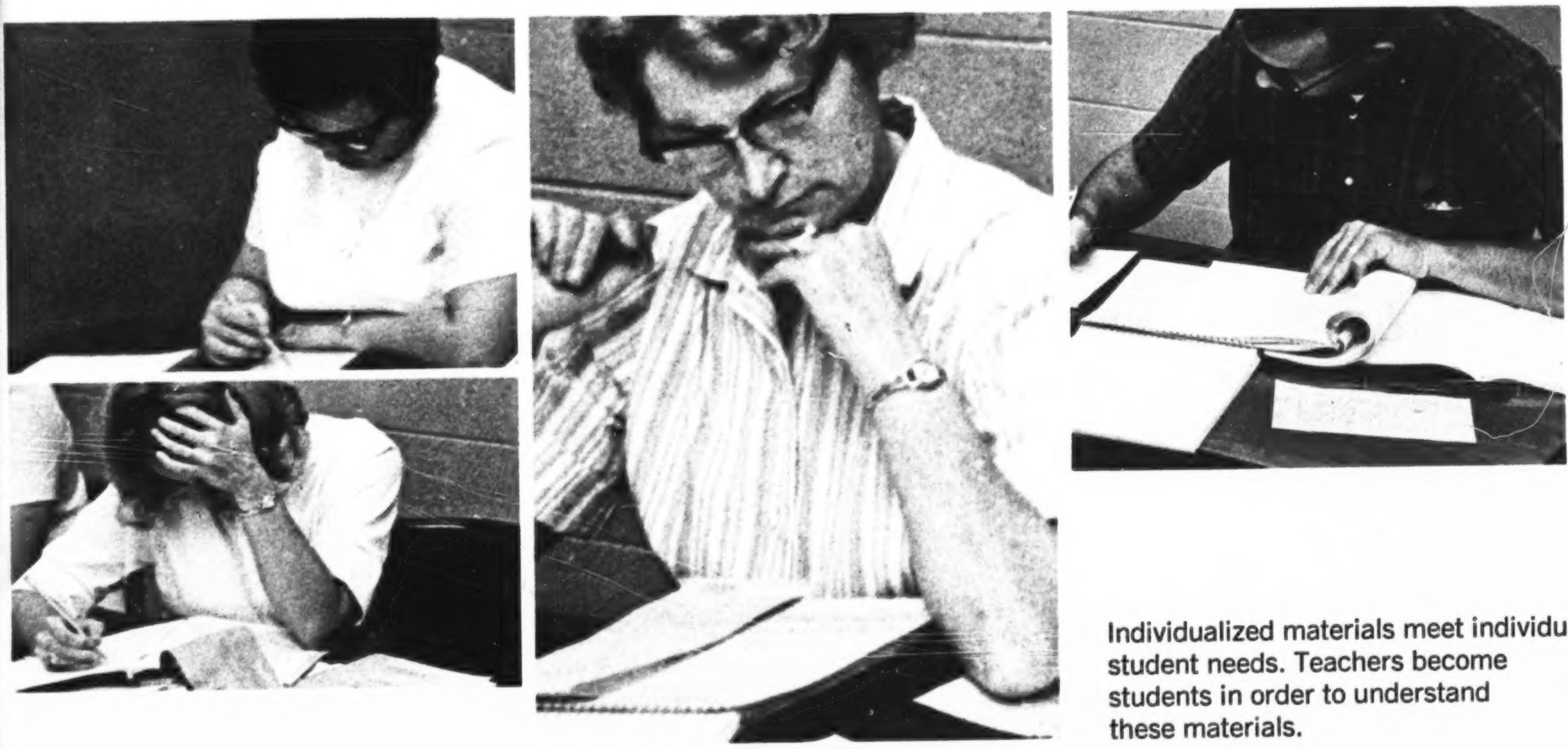
Let us consider the "look-say" method first. For the purpose of this discussion, I will have to oversimplify and cover only the bare essentials. In the "look-say" method, just as its name indicates, the student looks at a particular word, such as "father" and then says it. The word is learned as a "configuration". What this means is that the student learns to read a particular word because he recognizes that particular word by the way it looks. It is the same way that you would learn any code system based on a "look-say" method. To give you a concrete example, let us examine the way one learns the names of the ace, king, queen and jack in a deck of cards. You look at the symbol for an ace and you are told that such a card is an "ace." Every time you see that card again, you make the response "ace" either overtly or covertly, and thus you learn that there is a relationship between the symbol for "ace" and the name of the card. You do the same thing for king, queen and jack. You simply have to memorize the relationship between the symbol and the name. Now, the cards from two to ten are a different matter. They are coded in somewhat the same way as our alphabet codes words. Once you understand the code, you do not need to memorize the symbol, but you can count the number of spots and see that a specific card is a four, five, or some other card in the sequence of two to ten. The use of the "look-say" method reduces anything to the level of learning an individual's name— which of course has to be done by rote or by some mnemonic device. It would be much easier for all of us if there were a code connected with people's names so that tall people were all called "Joe" and short people were all called "Bill" or some other "categorization" were employed. About the best we have been able to do so far is to have masculine names and feminine names, and even that begins to blur in such cases as "Francis." Fortunately for us, and for people who are taught to read, there is a meaningful code in our written language so that we do not have to resort to a "look-say" approach.

We said that there is a second conventional way of teaching reading and it is referred to as teaching by "phonics." This consists of associating particular sounds with specific letters. The student makes the "b" sound when he sees the letter "b" and the "m" sound when he sees the letter "m", etc. This works rather well for the "consonants" but the would-be

Successful teaching involves the student. The ABE classroom is a laboratory for many purposes.

reader soon learns that the "vowels" have a great number of sounds; certainly more than thirty. For example, there is the long "a" in Jane, the short "a" in nap, the schwaed "a" in around, etc. Because of the lack of an isomorphic phonetic reference system in our language, teachers who use the "phonics" approach must utilize great numbers of rules. One of the more popular courses has almost a hundred such rules. For example, a phonics rule might be, "When two vowels go walking, the first one does the talking." If we follow this rule, the word "field" would be pronounced "filed"; thus "field" turns out to be one of the many exceptions. Because of the complexity of the rules and the tremendous number of exceptions, conventional phonics leads many students to believe that the code, if it does exist, is immeasurably complicated and they give up.

It was apparent to Dr. Sullivan and myself that any adult who is having difficulty learning to read, knows lots of words. He knows "table", "chair", "mother", "happy", "television", etc., etc. The problem obviously then is for the individual who is trying to learn to read to unscramble the code. He sees some letters and does not know how to relate these letters to the words that he already knows. For example, in a typical Dick-and-Jane type reading textbook, he may see the following: "See the happy boy." The student knows what each of these words means but he does not recognize that the particular letters indicate the words. Said another way, he does not see the relationship between the "words" as written out and the "words" that he knows when he hears them. In the Sullivan Behavioral Research Laboratory materials, the student's attention is directed to the letters in the word that he is trying to read, by means of a picture which he does understand.



Individualized materials meet individual student needs. Teachers become students in order to understand these materials.

In the Sullivan Behavioral Research Laboratories program, the pictures are simple, unambiguous stimuli which elicit an unambiguous response. Contrast this with the traditional illustration of a mother, father, boy and dog with the caption, "See the happy family." Later on the pictures in the program become more complex, but they always relate directly to the word patterns involved so that the student can perceive the pertinent relationship.

Sullivan starts with minimal pairs such as "pin" and "pan." The only difference between these two words is the middle letter. The student works with thousands of minimal pairs and he soon understands that there is a relationship between the written letters and the sounds that he can hear. Now the important thing is that each letter is assigned one sound when it is introduced, and maintains this simple sound-symbol relationship for a very long period of time in the linguistic progression. For example, the "i" has only the "short i" sound and the "a" has only the "short a" sound for a long period of time. When a new sound is introduced such as the "long a", it is introduced very carefully in an entirely new linguistic environment and the student is given specific cues as to what is happening. This means that the beginning student knows that every time he sees the letter "a" it has one sound and one sound only. When the student sees the word "pat" he knows that it is "pat" and not "pot", because he expects the "a" to have the "short a" sound. As we mentioned previously, this is particularly important with the "vowels" although some of the "consonants", such as "c", take on different sounds as in the case of the "c" in "cat" and the "c" in "celery."

There is one other important linguistic characteristic of the English language which should be mentioned. Because of our stress system, most multi-syllable words in English are schwaed. This means that the nonaccented syllable or syllables in a multi-syllable word are often slurred and relatively indistinct. A schwaed vowel loses its characteristic sound. Notice, for example, the sound of the "a" in "about" or the "e" in "report." In these words, the vowel of the unaccented syllable has a kind of "uh" sound. Thus, the relationship between letters and vowel sounds is obscured in multi-syllable words. At the beginning, when you are trying to teach what is primarily a decoding process, the use of the multi-syllable words is of little or no value. This is particularly true in the case of the remedial student. Therefore, in the Sullivan Behavioral Research Laboratories Program, there are no multi-syllable words for the first eight books. The student first learns the individual sound-symbol relationships. When he has learned them well, he is then carefully introduced to multi-syllable words that are grouped according to their linguistic classes.

By staying with the one-sound one-symbol relationship, the student easily perceives the code and can generalize with complete confidence to new words. The psychological principle of stimulus generalization operates and he does not have to simply memorize words as in the "look-say" method, nor does the student find the confusion which runs rampant in the traditional phonics with its numerous rules and equally numerous exceptions. It is only after the student has built up very strong response patterns for a particular sound-symbol relationship that a new relationship is introduced.

In addition to the one-sound, one-symbol relationship, all of the additional advantages which are inherent in programed instruction are utilized. The individual goes at his own pace. The individual is active and gets a chance to respond very often. The student who is learning to read experiences "success" and is strongly reinforced while learning to read.

There are other unique features of the programed reading materials that certainly have contributed significantly to their remarkable success. There is a linguistic placement test that indicates the precise starting point for each student. This is particularly important for adult students who do not need an entire sequence of materials. This diagnostic device is a very powerful tool for the teacher who needs to know where the student is experiencing difficulty. In addition, there are progress tests, an extremely detailed teacher's manual, and a complete set of tapes to accompany the material. Finally, there are correlated readers which offer the student appropriate material in exciting story form very early in the reading sequence.

These materials are being used with great success in adult basic education programs throughout the country and have been selected by Dr. Martin Luther King and his associates as the primary materials in their "Project Chicago" adult literacy prototype operation.

Dr. Allen D. Calvin, President of Behavioral Research Laboratories, has taught at Michigan State University and Hollins College. He is contributing editor to Educational Technology and is author of more than 50 publications, including three books.

Michigan Language Program

Presentation by Donald E. P. Smith

What Is It?

The Michigan Language Program consists of:

1. A set of self-instruction booklets and tapes, and
2. Provision for their use in a controlled classroom environment.

The program was developed in classrooms and was found to be most effective when the teacher managed the class in particular ways. Self-instruction in classroom management techniques for the teacher is provided.

What Does It Do?

The program begins with basic visual and auditory skills, then progresses to words, sentences and paragraphs. Systematic training is provided in the perceptual skills necessary for primer reading.

Books: I, II, 1, 2, 3, A, B

Listening: discrimination of phonemes, sounds in words, and words in sentences; the time order of these elements.

Reading: discrimination of letters, words, phrases and sentences; the time and spatial order of these elements.

Writing: discrimination of points in space and of letters and words imposed on space; the spatial order of these elements.

Speaking: discrimination of referents of common nouns and the ostensive meaning of ordinary spoken English.

Books: II, 3, 4, 5, C, D

The basic skills are followed by the mastery (i.e., recognizing, spelling, and cursive writing) of 150 sight words in stories. Sentence reading, phrase reading, word recognition, and systematic "phonics" training are provided in an interweaving progression in which wholes are analyzed into parts and parts are synthesized.

Higher level skills include:

Word attack: use of context for generating and testing hypotheses about unknown words; use of letter-sound regularities for generating and testing hypotheses.

Comprehension: following directions; recognizing equivalent sentences; classifying sentences in paragraphs; determining main ideas, details, etc.; inferential reasoning. The term "mastery" as used above is defined as 95% correct responses by 95% of children entering first grade. (Slightly higher criteria were used during the tryouts and revisions of the developmental period.)

How Does It Work?

The authors began with certain assumptions:

1. All learning tasks must be intrinsically rewarding in order to be learned and retained by all learners.
2. There is a progression of skills which all mature readers develop—a few spontaneously, others with help. (Disabled readers require unusual help in order to develop these same skills.)
3. Reading achievement is limited, to some degree, by any deficit in perceptual skills.

"Intrinsically rewarding" tasks are provided by a recently developed programing strategy based upon perceptual learning. It may also be viewed as "learning by imitation." A model and two

The ABE classroom can provide the "second chance" for a student to gain the self-confidence necessary for continued growth.

or more choices are provided. One of the choices is "the same as" the model ("same as" means "equivalent to"). The foils or incorrect choices are selected on the basis of their points of difference from the model. They are then arranged so that, given a certain level of attention, the learner is virtually always able to discover the correct choice and knows that it is correct without confirmation. (About 97% of his responses are correct.) Certain conditions facilitate attention:

1. Color contrast;
2. Size of print (or intensity of sound);
3. Order of tasks from simple to complex;
4. The use of extremely simple verbal directions or, when necessary, visual direction;
5. Classroom control techniques which provide maximum security for the learner.

Under such conditions (learning materials and environment) the learner is able to make all decisions by himself while working on this task. Independent work habits develop, dependency behaviors and other self-defeating habits tend to extinguish readily. Praise and punishment are not necessary for the success of these materials.

How Well Does It Work?

A. Achievement: Validation of the program is carried out in stages.
   1. Internal validation:
      a. Each frame was evaluated by using responses from a known population, a class of 19 "low" first grade children. Where more than 5% errors occurred, the task was re-analyzed and a new task or a series of them was substituted.
      b. In addition, the last page in each unit constitutes a test. For example, when the learner completes a unit of Book 3, he reads a series of sentences learned in the book, but presented now without picture clues. Then he reads the same words in a series of sentences which he has not seen before. He does not continue until these tasks are executed without error.
   2. External validation:
      a. All learning is next evaluated in isolation, e.g., in a test battery. Tests for the early books are called

Auditory Discrimination, Letter Recognition and Letter Writing, Word Recognition and Sentence Meaning, Spelling and *Cursive Writing*. These tests are currently being validated.

b. The final validation procedure will entail determining the learner's success in reading books.

B. Behavior:

1. Changes in behavior toward self-direction, decreased distractibility, increased length of working time, and a positive attitude toward reading have been recorded in a clinical setting and have been amply replicated in classrooms.

What Kinds Of Classrooms?

The program has been used without modification in the following ways:

1. Beginning instruction for normal children during regular reading periods.
2. Self-instruction for slow starters in regular classrooms which use basal readers.
3. Special room children, retarded or perceptually disturbed.
4. Clinical problems, either emotionally disturbed or chronic reading disabilities.
5. Job Corps and adult literacy centers.

How About Trouble Shooting Particular Skills?

Manuscript Writing—Books A and B

Beginning Spelling—Book C

Cursive Writing—Book D

Auditory Training—Book I

articulation defects

English as a foreign language

moderate deafness

lipreading

Visual Training—Books 1 and 2 (initial), Visual Tracking (advanced).

Dr. Donald E. P. Smith heads language research and psychological services at the University of Michigan where he is also consultant to the Center for Programed Learning for Business. He is author and editor of programed materials.

Mr. Robert Morasky, Director, Adult Basic Institute at the University, assisted Dr. Smith in the presentation.

A Learner-Centered Instructional Systems Approach

Presentation by W. J. Fightmaster

On September 7, 1965, Oakland Community College began instruction at two campuses located in Oakland County, Michigan with an enrollment of approximately 3,800 full-time students. The objective for the College was to begin simultaneously a multi-track, academic and technical educational program accommodating the needs of individual students with unique educational objectives and different prerequisite skills. The curricula for the multi-track programs are based on the following educational and training functions to be performed by the college as endorsed by the Oakland Community College Citizens' Advisory Council.

Transfer Programs: The establishment of an academic transfer curriculum whereby students could complete their first two years of academic work prior to transferring to four-year universities or colleges for baccalaureates and advanced degrees. Successful achievers receive the Degree of Associate in Art.

Technical Programs: The establishment of technical training curricula providing the necessary qualifications for employment upon completion of the programs. Selected two-year technical and vocational programs lead to the Degree of Associate in Applied Science. One-year technical and vocational programs offer a Certificate of technical proficiency.

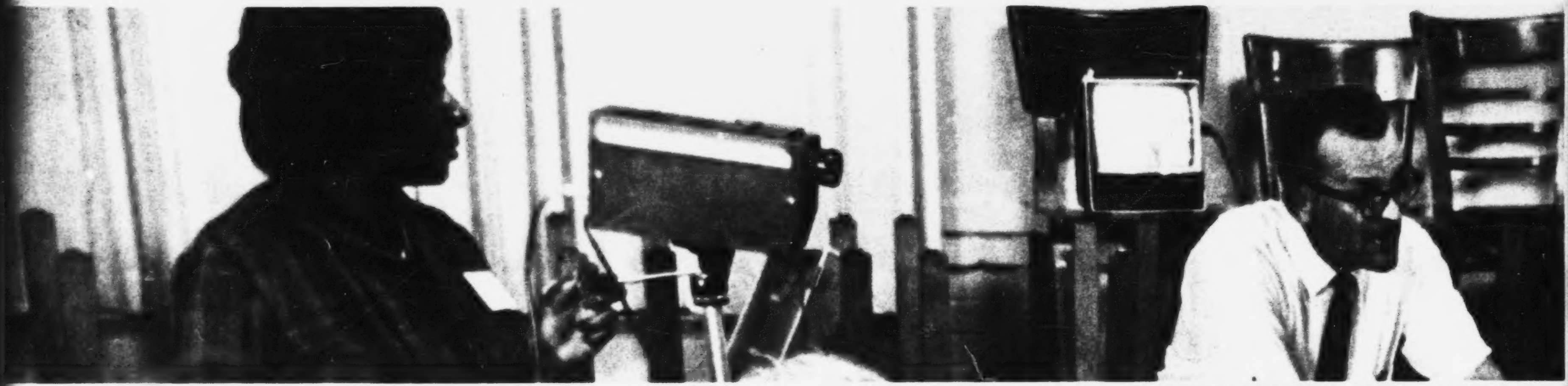
Developmental Programs: The establishment of curricula for those who had limited success in high school and who desire the opportunity for continuing their education. Often this "second chance" is all that is needed for a student to gain the knowledge and self-confidence necessary for continued successful growth.

Community Service Programs: The establishment of curricula for adults who want to further their education for new careers or new fields of interest, avocation or present occupational requirements, or constructive use of leisure time.

Counseling Service: The establishment of programs of placement testing, admissions counseling, financial assistance, placement and counseling for personal, social and vocational adjustment to be offered each student.

Instructional Method

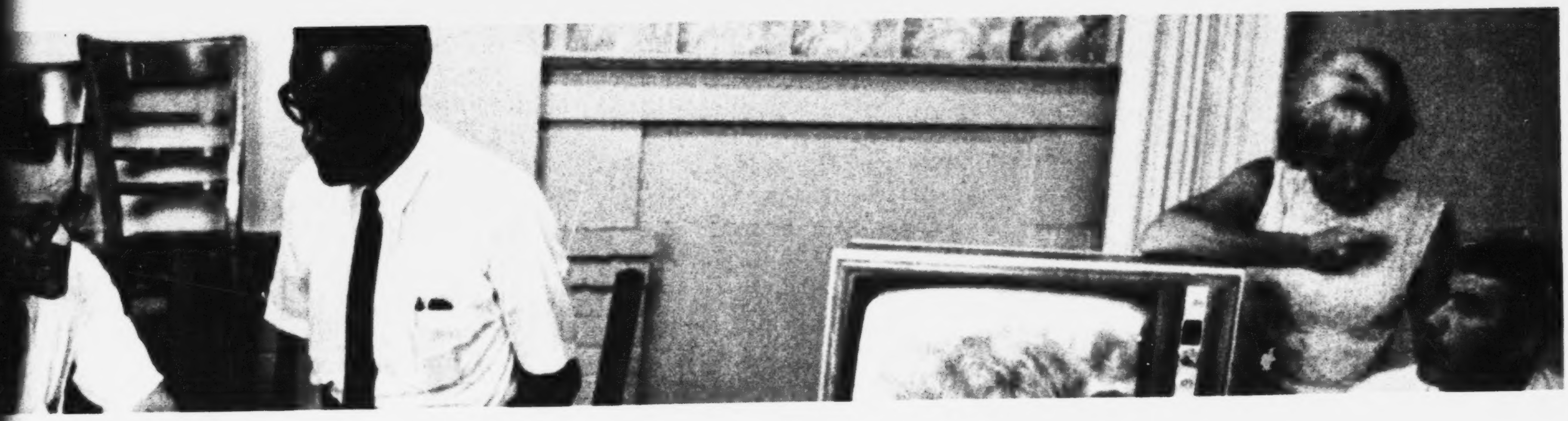
An imaginative approach for implementing higher educational programs has been instituted at Oakland Community College. In contrast to conventional instructional approaches, Oakland Community College has attempted to develop an instructional approach which is primarily learner-centered. This Learner-Centered Instructional Program is an outgrowth of the systems approach to education and training in general. The overall concern with human learning, training and educational research fostered after World War II by such organizations as are now represented by the U.S. Army Human Resources Research Office (HumRRo), U. S. Air Force Behavioral Sciences Laboratory, American Institute for Research, and others, has promoted the advancement of the state-of-the-art for educational and training technology. Oakland Community College has recognized these advancements and availed itself of this technology. Developments in programed learning itself have, of course, influenced the Oakland



Teachers of adults learn to use a variety of equipment in the new educational technology.

Community College concept profoundly. Most recently, the work of Dr. S. N. Pistlethwaite of the Botany Department at Purdue University has provided a working model (The Audio-Tutorial Method) from which the Instructional Systems Approach at Oakland Community College was initially derived. The Oakland Community College approach has now been modified to the point that the term "Audio-Tutorial" is no longer used.

Although programed instruction has sometimes been equated with the instructional systems approach, there are, of course, differences between them. However, the major difference is really one of scope of application rather than one of kind. At one level, which we may call the micro-level, one finds the systematically developed and evaluated programed book extremely effective and efficient as a teaching medium, but essentially incomplete for anything like semester-length instruction. At the macro-level, on the other hand, the same systematic development and evaluation can be applied to total course design. Oakland Community College has carried the macro-level concept one step further, and has attempted to apply it, not only to *individual* course design, but to total curriculum and facility design.



The approach and functional steps involved in the systems definition, design, production and implementation of instruction presently followed at Oakland Community College, incorporates at the macro-level many of the basic features applied to the design of programed media in general.

1. Terminal Objectives for *all* courses are identified, and defined in behavioral terms. Terminal Objectives or Terminal Performance Specifications (TPS)—what the student should understand, comprehend or demonstrate knowledge of at the end of his course of instruction—are prepared by each faculty member having responsibility for a course offering. Generally, each unit (covering a 1-2 week period) of the course is designed to accomplish a specific TPS. Each unit has a criterion test which is used to evaluate achievement of the TPS by the student.

2. Once the Terminal Performance Specifications are documented, attention is given to the identification of the Interim Objectives or the Interim Performance Specifications (IPS) and detailed learning steps. These are sequenced meaningfully, and wherever possible, time-based. The IPS's are ordered from the simple to the complex or from the unfamiliar to the new as in the micro-programed book, with an attempt made to assign study times appropriate for achieving them. Since the objectives are made explicit, the most appropriate media can be selected. These range from mimeographed essays with study questions to audio-tapes, integrated text readings, textbooks, journals, magazine and newspaper articles, visual displays, 8mm single concept films, film strips and 35mm slides, laboratory experimental set-ups, and of course, programed texts. Materials are constructed or selected so as to allow for active response by the learner, and immediate feedback to him.

3. An attempt is made to keep the learner aware of what the sequence of instruction will be, in most cases, by furnishing him with a study guide or checklist for each unit of a course. This guide lists the general and intermediate objectives that he will be expected to achieve and the learning steps he must follow. Thus, he is kept informed at each step within a unit of a course what he will be tested on and when, so that he can schedule his time in the learning laboratory—as it is known at Oakland Community College—on a self-paced basis.

4. The overall approach—of stating objectives in behavioral terms, of organizing and sequencing media and study time, of the learner keeping himself informed, and of promoting his active participation in the learning experience—is then evaluated regularly and frequently by calling for the appropriate criterion responses. These are embodied in oral, performance and written tests.

The implementation of all these instructional programed features at Oakland Community College constitutes a unique Learner-Centered Instructional Systems Approach. Such implementation has resulted in many innovations in the appearance of our facilities and the conduct of our educational practices. Learners at Oakland Community College follow a self-paced and self-scheduled plan of study in accomplishing most of their program/course requirements.

This has created the need for unique facilities unlike the conventional classrooms. The result has been the Oakland Community College "learning laboratory" which houses study carrels rather than traditional student chair-desks. When needed, laboratories of the more traditional type provide an opportunity for the student to apply what he has learned to practical problems, and find unique solutions. While the learner is in the laboratory, tutors are available to answer questions and offer other help on a one-to-one basis. If the learner's need is more extensive, individual conference areas adjoin the laboratories.

If at the end of a unit of instruction the student requires individual clarification of an even more extensive nature, or has formulated an individual project which he would like to carry out, or has begun to think about career opportunities, faculty with extensive experience in the student's field of interest can be consulted. An effort is made to see that faculty advisors and laboratory tutors keep scheduled hours to assist the student. Facilities for enriching subject matter, motivating further inquiry, clarifying special issues, allowing group discussion and evaluating the student's progress are also provided. These needs are met in either Small Assembly Sessions or large General Assembly Sessions. In the Small Assembly Sessions five to six students meet with the tutor for seminar-type discussions and, for example, case-study solving. At the large General Assembly Sessions they meet in groups of 30 or more with an instructor to hear guest speakers, view group movies or take unit quizzes or course tests.

The unique specification of the learning experience at Oakland Community College and the availability of extensive course planning and implementation documents will eventually enable public evaluation of our program. It has already provided an invaluable opportunity to work cooperatively with commercial firms in the preparation of a portion of our program texts/booklets. The highly detailed performance specifications developed by Oakland Community College are presented to the college's contractors, Litton Industries (which utilizes the linear instruction programing format) and Howard and Smith (which utilizes a tight branching format) to undertake the programing of some 132 unit-length, instructional programed texts/booklets for some 20 college course areas, based on our unique requirements.

In summary, the application of the Learner-Centered Instructional Systems Approach at Oakland Community College was adapted to reach more students with less instructional personnel, promote the learning of more information with greater comprehension and in less time.

Mr. Walter J. Fightmaster, Director of Community Services, Oakland Community College, has had fifteen years administrative, management, and instructional experience in education and training with educational and industrial organizations.

Adult Basic Education Objectives

Presentation by Joseph A. Mangano

Before we can hope to define adequately and develop a curriculum for adult basic education, we must clarify in our own minds the objectives of the program. There has been much confusion on the part of educators as to exactly what adult basic education is, and what the objectives of the program are. It is not sufficient to merely state that the literacy skills must be raised to a specific level, be it 6th grade or 8th grade, or that the computational skills must be raised to an "X" level. As educators, it will be important for us to upgrade the literacy and computational skills as quickly as possible, but basic education must be more than merely just a skill development program. As educators, we know that the literacy skills and the allied skills of computation cannot be taught apart from the total behavioral patterns of students. It is necessary, therefore, for us to design a total program which will raise those skill competencies which, in turn, will be utilized by the student to assist him in changing his behavioral patterns in a way which will make him—(1) more marketable in the job market, (2) a more effective parent, (3) a wiser consumer, and (4) a more understanding and active citizen. These latter objectives will not be attained by simply raising literacy levels, nor can we wait for these objectives until the illiterate becomes highly literate. The ABE curriculum must be designed to provide information which will help the participant solve immediate life problems and which will enable him to better understand the societal structure to which he must adapt in order to become one of the advantaged rather than one of the disadvantaged. Therefore, we must come to think of Adult Basic Education as a two-fold program; a program which will develop the tools for upgrading skills; i. e., literacy and computational skills, and which will effect immediate behavioral and attitudinal changes in the participant.

These objectives cannot be obtained in a traditional elementary type program. We must tailor our educational offerings to meet the objectives of the adult and to assist the adult in formulating obtainable goals for himself. The ABE curriculum cannot be implemented with the schoolmarm concept of education. It will require an individualized prescription approach for each participant. We must train our administrators to develop professional and para-professional staffs which will be able to offer many supportive services needed to develop and implement ABE offerings. Recent research indicates that programed materials for the development of literacy skills can be of great value in individualizing an educational program. However, before these programed materials can be utilized to their fullest extent, diagnostic tools must be administered which will uncover specific disabilities in the skill competencies of an individual. Supporting this individualized approach to developing literacy skills must be a program of educational, vocational and personal counseling to complement the activities of the Adult Basic Education program.

If we are to be successful in altering the conditions of the

Consumer education and family life are important aspects of the ABE curriculum. Often they lead to employment.

disadvantaged, we must develop our methods of recruitment; referral of students completing the program to other agencies for job placement and vocational training; and our methods of assistance with personal problems. The total ABE curriculum offerings must be presented in an adult manner using discussion techniques and audiovisual aids to develop concepts of consumer education, family life education, orientation to the world of work, practical government and health. Administrators of Adult Basic Education programs must provide pre-service and in-service opportunities for developing their staffs' competencies in this new discipline of adult basic education. Creative and innovative use of new media must be experimented with in order to shorten the time needed to upgrade the literacy skills and effect immediate behavioral and attitudinal changes in the disadvantaged population.

Mr. Joseph A. Mangano, Supervisor of the New York State Bureau of Basic Continuing Education, has served as chairman of the Literacy Committee for the National Association for Public School Adult Education.

Applying The Educational Science To Adult Education

Presentation by Joseph C. Paige

It has long been an American tradition in public and private education to provide for the life-long needs of all our citizens. While as a nation we have responded positively to this challenge, our progress in providing meaningful programs to the undereducated adult leaves much to be desired. Fortunately, however, under Title II B of the Economic Opportunity Act of 1964, various innovative programs and projects have been developed for this population. The Adult Education Act of 1966 provided additional funds for a broader scale coordinated attack on the problem of undereducation at all levels. Our institute is supported in part by these funds.

General

The Urban Adult Education Institute (UAEI) was established as a cooperative effort of the Detroit Public Schools and Wayne State University to develop and test a wide variety of approaches, techniques, and materials for working with urban adults at all levels—the undereducated to the post-doctorate—using the guidelines of the educational sciences.

The educational sciences provide the means whereby educational purpose can be clarified, consistent interpretations of data can be realized, and the reliability and validity of predictions and generalizations can be determined.

The program focuses on such broad areas as manpower resources development, and identification of new techniques for administration and teaching programs in adult basic education, social welfare, health, law enforcement, housing, consumer education, community involvement and related areas.

Major Initial Goal

The major initial goal of the Institute is to identify ways to broaden and increase education and employment opportunities for uneducated and undereducated adults through multi-media approaches, using the latest in educational technology, including programed instruction, computer-assisted instruction, educational television, and other forms of self-directed learning experiences. To accomplish this, the Institute will test a variety of "grass-root" approaches for the effective involvement of adults as individuals and as families, in their homes and neighborhoods. Such basic adult education programs as General Educational Development preparation, citizenship education, consumer education, and various forms of job-related programs will be created, tying innovative techniques to the needs of people in the community.

Program Activities

Program Activities are in five major categories:

1. Professional and Continuing Education

   —development of special training programs for adult education administrators with emphasis on recognition, solution, and prevention of problems existing in the administration of adult education programs of all kinds;

   —examination of specific professional problems of individual concern relating to institutional programing, career growth, and curriculum development;

   —broadening of professional understanding of the present and future role of research in adult education through seminars, conferences, colloquia, and special lectures;

   —provision, through the cooperation of Wayne State

Many teachers at the training institutes meet the new technology for the first time.

University and other institutions, of facilities and programs for in-service training of adults encompassing master's and doctoral programs.

2. Adult Basic Education

—development, refinement, and assessment of the effectiveness of new and innovative instructional materials and programs for adults in a variety of environmental settings;

—identification and definition of behavioral changes to be effected in the undereducated adult learner in the cognitive, affective, and psycho-motor domains in such areas as reading, communication, job skills, home and family life, citizenship, consumer education, arithmetic and various sub-areas of the social sciences;

—identification of specific behavioral changes considered desirable for proper articulation and assimilation of the educationally disadvantaged into the mainstream of human activities;

—provision of a framework for the organization of significant learning experiences in sequential and inter-related patterns;

—evaluation of existing instructional materials for adult basic education programs.

3. Systems Analysis

—organization of researched materials in order to provide consistent interpretation of data and assure validity and reliability in predictions and generalizations;

—provision of guidelines and instrumentation for institutional programing, career growth, and professional evaluation;

—identification of existing instrumentation or creating instruments to meet program needs in the areas of evaluation, behavioral changes and the organization of learning experiences;

—provision of guidelines and instrumentation for planning, developing, and evaluating all pilot programs created by the Urban Adult Education Institute.

4. Employment

—development and testing of a variety of programs and approaches for recruiting, training and securing of permanent employment for the undereducated adults;

—identification of organizations in the area that are involved in cooperative programs aimed at job placement, job training, job upgrading, and job retraining;

—identification of manpower resources that exist in a community and relating these to existing and potential job openings, including the development of training programs related to these job needs, using a variety of approaches.

5. Community Involvement

—development and testing of a variety of programs and approaches to encourage the effective involvement of adults at all levels in local community, city, state, and national affairs;

—development of total community involvement, as part of the adult education program commitment of the Urban Adult Education Institute, through the use of facilities, and programs geared to community needs;

—development of interest, awareness, a feeling of personal worth, and a sense of community involvement in the adult learner;

—development of joint community and school action programs;

—development of models for professional guidance and vocational counseling programs for local communities;

—development of programs to increase the learning potential of the adults by attacking emotional, psychological, linguistic, cultural, economic and physical stumbling blocks.

Operation

The Urban Adult Education Institute will recruit and accept students; analyze individual needs; and design, structure, demonstrate and evaluate new and innovative programs to fit these individual and group needs. It will also provide guidance and counseling services to help eliminate personal, social and economic factors believed to impede learning.

The Institute will provide programs for in-service training of adults—both professional and auxiliary personnel—including seminars, colloquia, conferences, institute courses, and special lectures and demonstrations.

Organization

The Urban Adult Education Institute, within the first period of its development, will establish five general sections:

1. Adult Education, including Adult Basic Education, Adult Secondary Education and Continuing Education;
2. Vocational Education;
3. Center for Experimental Education (Demonstration Laboratory);
4. Personnel Training; and
5. Systems Analysis.

Professional staff for the Personnel Training Section and the Systems Analysis Section are provided on a contractual basis by Wayne State University.

Funding

The Urban Adult Education Institute was funded initially by the Michigan State Department of Education, with supplemental funding by the United States Office of Education. Other federal agencies, industry, foundations and individuals will be approached for financial support for special projects or activities.

We believe that the imaginative and innovative programs of UAEI might prove to be the real difference between positive self-uplift and another "hot" summer.

Dr. Joseph C. Paige is consultant to numerous organizations and concerns which develop and disseminate new educational techniques. He has directed special projects under federal and private research grants, and has authored several books and articles.

nnovations in Technology

No system thus far devised is the final answer to effective and efficient learning. Much exploration has been done; much more is required. Public as well as private organizations are continuously searching for better ways to reach the learner in today's world. The papers which follow deal with the new educational technology that promises to lead us to our ultimate goal—the eradication of illiteracy.

Programed Instruction and Teacher Attitude

Presentation by Rex Reynolds

Programed instruction is a teaching technique that can light an intellectual fire. However, no technique or system can function successfully if it is not accepted by the teacher. There is little doubt that teacher attitudes will determine student attitudes toward programed instruction for better or worse.

I have gathered a great number of teacher reactions to programed instruction during five years of lecturing to classroom teachers throughout the United States. In this paper I should like to respond to some typical negative comments, drawing from my experience of using programed instruction with thousands of students in public schools, colleges, business and industry.

1. *Programed instruction is boring.*

Any teaching technique will become boring if it is used excessively. For example, look at the bored and fatigued faces in a classroom in which lecturing is the only technique and discussion and the use of visual aids does not occur. Boredom is to be expected if students are not stimulated by a diversity of teaching techniques and aids.

A study at Michigan State University showed that programed instruction was third from the top in student appeal as a teaching technique when compared to various other methods. In this same study lecturing was at the bottom of this same list.

If programed instruction is used in proper proportion to other teaching methods, it will be exciting, not boring.

2. *Programed instruction teaches only facts, not concepts.*

This statement is partially true. Programed instruction *does* teach facts, but in the process it also teaches concepts. Professor Hull, in the 1920's, pointed out that "for every generalization there are specifics." Programed instruction is a youngster in the educational field and as each year passes, it evolves into a much more sophisticated process. If one looks at the various titles available in programed units today, one can readily see that it teaches far more than just facts.

3. *There are other learning theories and we can learn via other learning methods.*

This is true; but programed instruction has been put into actual practice with great success. Many other theories remain just that, theories.

4. *Programed instruction cannot teach reading.*

Programed instruction is being used effectively to teach reading in thousands of classrooms throughout the country. For example, one can look at the Programed Sullivan Series or at the Semi-Programed Mott Series which are developed exclusively for training adults to read.

5. *Programed instruction doesn't work on* everyone.

Instructors at ABE institutes concentrate on overcoming teachers' prejudices against new equipment.

Agreed. But neither does a tape recorder, overhead projector, lecture, blackboard, television, and many other devices.

6. *Programed instruction makes robots out of students.*

If one were to look at many present-day classrooms, one would be appalled at the "structuring" that occurs. Administrative policies tell the student which games to play in which area of the playground, and with which students until what time. The student is then fed into the classroom in a "structured" sequence, is seated into a "structured" sequence, and utilizes materials according to a rigid "structured" sequence. This orderly "structuring" is continual throughout the entire school day, and indeed, throughout the student's entire school career. Fortunately, programed instruction is one of the new techniques which allows independent self-study. It also frees the teacher to work independently and creatively with each student.

7. *Programed instruction is inappropriate in that all of the students can receive an "A" on the final examination.*

That is true. Programed instruction is designed to do this very thing. Can one name another technique that is this effective? It seems incongruous to criticize a technique because of its effectiveness.

8. *Not enough programed instruction materials are available.*

Not true—there are more than two thousand different programs available for use by the teacher—everything from how to play bridge to a program course in neuroanatomy for medical schools.

9. *Programed instruction destroys the normal curve.*

This is very true. Programed instruction is based on the assumption that students do not fail.

10. *Programed instruction over-teaches the student.*

This can be true. However, there is a strength in this process of over-teaching, as it allows previously learned erroneous behavior to be corrected.

11. *Programed instruction is not validated.*

Programed instruction has been tested and validated at least as much and probably more than any other teaching device. This cannot be said for a textbook.

12. *Programed instruction does not cover everything.*

This is true. Programed instruction does not cover everything. Programed instruction is only another teaching technique. However, there are a number of comprehensive and intensive programs that cover a great variety of subjects.

13. *Programed instruction penalizes the "bright" student.*

This will not occur if the teacher will pretest and start the "bright" student at his proper level of ability. One wouldn't give a third grade reader to a student with a sixth-grade reading level.

14. *Programed instruction is too easy.*

Programs are designed to teach by reinforcing the student's correct responses. If the material is too difficult the student cannot do the right thing, and subsequent reinforcement will not occur. Programed learning is designed to be easy for this reason.

15. *Programed instruction repeats itself.*

Programed instruction deals with a great deal more than repetition. It is a scientifically designed process which follows a well-established line of reasoning. To the casual observer it can appear to be a repetitive technique.

16. *Students do not like programed instruction.*

Consider the source of this information—the overwhelming majority of cases will show an extreme deficiency in the attitude and knowledge of the teacher using the programed materials.

17. *Programed instruction is too expensive.*

Programed instruction is very *inexpensive* to use. One small set of programs can serve hundreds of students per day over several years, thus reducing costs to a fraction of a cent per hour of self-instruction.

Dr. Rex Reynolds is a Research Associate, with the Industrial Relations Center, University of Chicago. An authority on programed instruction, he is at present exploring areas for the multimedia approach to learning.

New Ideas and Technology... A Challenge

Presentation by T. W. Roberts

Make it practical! Make it feasible! Make it stimulating! These were the key words in the planning and presentation of the instructional technology sequence for the pre-institute seminar.

Thomas H. Dunn, Associate Director of the Center for Instructional Technology and myself were determined, first of all, that the group would receive content and ideas which would be useful in the field. Secondly, we vowed that all of the information would be demonstrated and presented by utilizing as many different media as possible. Further, we decided upon a team approach which would be fast moving and which would have variety and a built-in change of pace. In brief, this is what the sequence contained:

The Value of Instructional Media—The research statistics concerning the effectiveness of instructional media were demonstrated utilizing the overhead transparency projector. Various overhead manipulation techniques were employed in attempting to develop a "gung ho!" attitude toward the need for and the use of such materials.

Presentation Boards—The construction and use of Slap Boards and Hook 'N Loop Boards were demonstrated. The boards were then used to demonstrate and show the many kinds of inexpensive graphic art materials which could be used in the "Do-It-Yourself" preparation of instructional materials.

Instructional Materials Sources—The group was shown the many local and national sources for locating both the older and newer instructional media. Information was given concerning sources of free and inexpensive materials as well as the major indices for locating and securing the many thousands of instructional resources which are available for use.

The Overhead Transparency—Many transparencies were used to quickly review the production techniques for these materials. Included were demonstrations of methods for making reproduction stencils and paper copies for handout materials. All reproduction was shown on simple equipment which is easily available in the fields.

The 35mm Slide Story—The potential of 35mm slide sequences was illustrated through exposure to "idiot-proof" cameras and to inexpensive audio tape recorders which may be coupled with new inexpensive automatic projectors. Simple production techniques were outlined which could be used to custom-make instructional sequences to meet individual needs.

The 8mm Story—Using camera equipment and actual projectors, the following facets of the use of 8mm motion pictures were explained: the development and potential of the Super-8 format; simple, inexpensive Super-8mm motion picture cameras; the single concept film; cartridge loaded 8mm silent projectors; cartridge loaded 8mm optical sound projectors. The procedures and costs involved in the local production of 8mm were developed for the group.

The Language Master—This unit and its potential for adult basic education was demonstrated utilizing actual pieces of equipment. The group was also shown simple methods of local production of materials for use on the Language Master. The Polaroid Camera was shown as a means of quickly making pictures which could be attached to Language Master Cards which are produced locally.

The Mast Teaching Machine—This unit was demonstrated as a form of display device for programed learning materials. Again, this was portrayed as a format which may be easily prepared and reproduced at low cost to meet a local need.

Miscellaneous Helpmates—Actual equipment and materials were used to demonstrate the following: the Execugraph unit which has a simple, easily-produced figuration for individual learning; a portable battery-operated Public Address Lectern for use in remote situations, without electricity; and small inexpensive battery-operated audio tape recorders for providing cartridge loaded lesson materials.

Dial Access Learning Resources Retrieval—Wayne State University is moving forward with a university-wide dial-access retrieval system for learning resources. At the time of the pre-institute seminar the University's Learning Resources Laboratory was nearing completion. Using the facilities of this laboratory as a nucleus, the following trends of the future were demonstrated and explained to the group: the individual study carrel as a place of privacy and isolation from the peer group; the instant retrieval to the carrel of audio learning materials through the use of a telephone dial; the use of audio materials in conjunction with easily prepared workbook materials; the use of individualized learning sequences in the carrels; the use of still projection sequences with audio support; the use of 8mm cartridge materials in individualized learning; and the system approach to the development of learning resources.

Throughout the presentations and demonstrations questions and discussions were encouraged. There were many questions and much lively discussion which evidenced to us a tremendous interest in and a thirst for knowledge about the role of instructional technology in the adult basic education field.

An informal evaluation at the conclusion of the sequence indicated that the group would have liked more time in the area of instructional technology. Perhaps in the next pre-institute seminar more time can be structured for this experience.

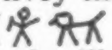
Dr. T. W. Roberts, Director of the Systems, Distribution, and Utilization Department, Wayne State University, has taught instructional technology and has served as consultant to numerous public schools and industrial firms.

The Video Tape Recorder in Use

Presentation by Herbert Nichols

It may seem fantastic but the Video Tape Recorder (VTR) is a direct, full-blooded descendant of a piece of chalk. In the learning process today it is taking on the importance a piece of chalk has had for many centuries. Lying on the ledge of a blackboard the chalk was useless as a teaching aid. But once it was brought into motion to transmit a message on the blackboard, whether the message was a letter, a word, or a picture, the chalk began to perform a valuable teaching function. It animated the learning process. That's exactly what the VTR is doing today, when more ground must be covered in less time.

The chalk and the VTR are tools for teaching and also vehicles for learning.

Prehistoric man and the great scientist Albert Einstein both chose chalk to convey their respective messages, ( $E = mc^2$). These examples illustrate the simplicity of the one versus the complexity of the other. Yet the chalk served to convey both pieces of information. In his book, *Understanding Media: The Extensions of Man*, Marshall McLuhan says: "The media is the message." In other words, without the medium, the message cannot be conveyed. The chalk was the teacher's medium, or tool, in transmitting instruction when we were in elementary school; it was the medium we employed with our playmates when we played games on the sidewalks in front of our houses. It still serves as a medium today.

But in this age of electronic marvels we have the benefit of other tools, such as the Video Tape Recorder which gives us a film-like presentation, a panorama of the instructor imparting information and the pupils receiving it. A single shot or sequence can be shown over and over again.

In every learning process certain symbols are used. These symbols must be understood by the teacher and the pupil.

For instance, the letter "A" must mean the same thing to the teacher of reading and to the pupil. The purpose of the wrench must be the same for the teacher demonstrating auto repair and for the pupil. On the other hand, the symbol "A^2" has no meaning for the ordinary literate person; it has considerable meaning to the math student.

The person who makes the symbol "A" and then proceeds to produce the sound "a" is in agreement with a convention of communication. At each step of the learning process teacher and pupil must both understand what the symbols mean and why they are used. Then the extent of the medium's capability to transmit messages, whether by single symbols, letters, words, sentences or pictures, becomes almost unlimited.

We can transfer learning information in a sequence form (one step at a time) or we may transfer parallel series of the learning information, but this would depend upon the capability and experience background of the receiver of the learning to acquire the lesson he is learning.

In summarizing this introduction we could say that the chalk can be used to draw pictures ($E = mc^2$) and that if these pictures are drawn by a teacher in an ordered sequence tailored to fit the understanding of the learner, learning will take place as long as reinforcement and practice toward mastery of the skills being transferred or learned are provided.

As this interactive experience between teacher and learner is extended, a new and more sophisticated level of communication is established between the source of learning, or the teacher, and the receiver of the learning, or the pupil, and this includes information fallout.

The pencil, the pen, the printing press, and the Video Tape Recorder are but extensions of the cave man's and the mathematician's "chalk."

The Video Tape Recorder is a product of our modern electronic technology. We feed into it through a camera and read it out via a television picture tube. This transmission process is basically a high speed horizontal movement of an electron beam across an electrically photosensitive equivalent of a blackboard in the camera, to segmentally divide light hues and intensities of a particular scene at an extremely rapid rate (one complete scene in 1/60 of a second). This picture or scene is applied directly to the video tape and for all practical purposes, it will remain there permanently until erased.

When we play back the Video Tape Recorder, these stored impressions of light hues and intensities are sent to the chassis of the TV for reassembly of the segmentally stored light information. In effect, the hand that controls the electron beam electronically translates or draws the picture on the TV picture tube.

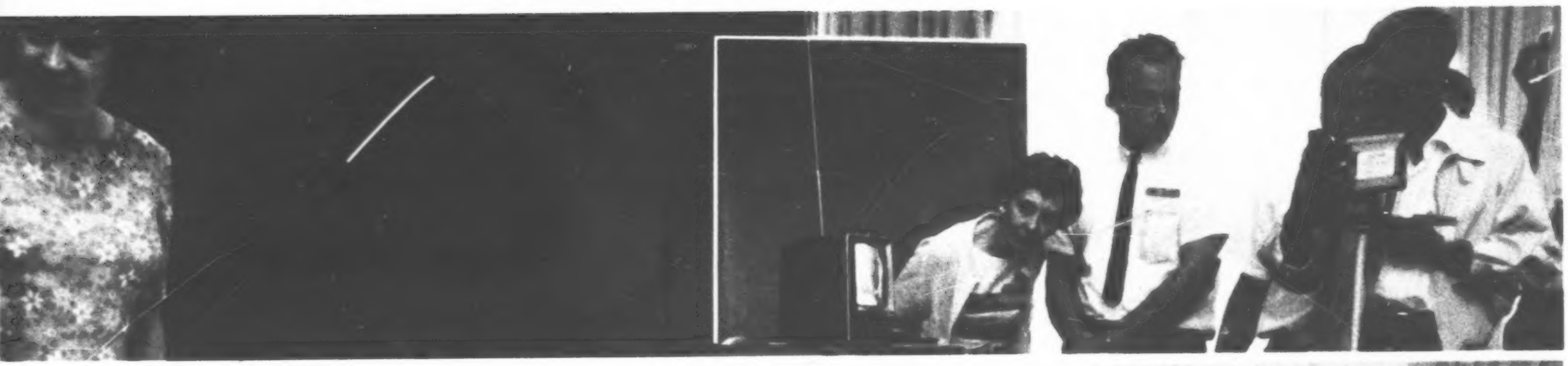
The VTR with its recording and playback system, except for the involvement of electrons, is basically an extension of the ordinary piece of chalk.

There is, of course, one additional dimension of this message conveyor, and that is "sound." The reproduction and recording of sound is much the same as the recording and reproduction of the picture. The major difference is that the input is a microphone and the output is through a loudspeaker. The rate of picture taking and production of the Video Tape Recorder system, as was stated, is one complete picture in one sixtieth of a second or 60 pictures per second. The pictures appear and disappear so rapidly that the eye sees only smooth continuous motion.

The system from start to finish is light variations changed to electrical variations on a photosensitive equivalent of a blackboard to the video tape and on playback to the electron beam in the picture tube. The result is a picture of motion.

In so far as our human sensory input is concerned we are feeding only two senses (sight and hearing), but from these two we receive a tremendous amount of information. We have but to recall the last good movie or TV show we saw to realize the efficiency of the message conveying system. We laugh, cry, get hungry, hate, love, just from looking and listening to these presentations. Whether the message content in the picture be fiction or fact it is generally the initial design of that message that will determine whether the message receiver interacts with it. This is also true for the educational message. Hollywood with its writers, artists, cameramen and sound men all are conversant with the grammar of cultures.
As described by Edward Twitchell Hall, in *The Silent Language*, the general culture may be listed as a system of sets, isolates and relationships.

The "*sets*" are those particular fixes in culture such as dietary peculiarity, clothing, family, social image. The "*isolates*" are the separate segments or elements composing the sets. The "*relationships*" are the patterns of organization peculiar to a culture or ethnic group. Hollywood, as stated above, is conversant with the structure of the general culture. Hollywood has also contributed to the changing of the general culture. Compare the movies of the 40's and 50's with the movies of today. Consider the level of sophistication of the themes of today's movies as compared with the movies of the forties. The general acceptance by the public of



The VTR enables teachers to watch themselves in action—to overcome weak points and improve their roles.

This teaching tool can be extended to very broad areas.

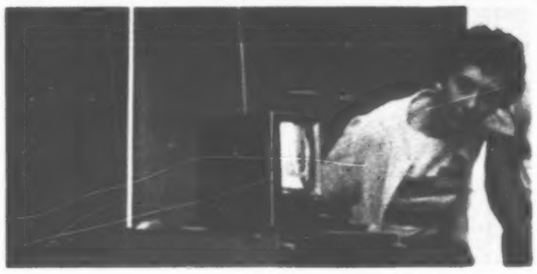
movies based in the areas of sex, social relations, science fiction, aggression, is the result of gradual conditioning by the writers and artists of Hollywood. The audiovisual medium plays a larger part in shaping our ways than we are aware.

As Derek Nunney pointed out, "Shakespeare for the masses" is testimony to Hollywood's understanding and utilization of the film medium. In the *Taming of the Shrew*, Hollywood has intruded on the area traditionally regarded as the sacred domain of the most literate in society. Now everybody can understand what this shrew-taming kick was about. The purists in most cases will find it hard to accept this film message as valid and representative of this Shakespearian "classic." They might even consider it to be a "vulgar" intrusion on the part of Hollywood into this area.

In order to put the Video Tape Recorder into practical use in teaching and learning, you will have to make some more vulgar intrusions. You will be facing opposition from the traditionalist in subject matter areas, from the professional audiovisual specialist and technician in your existing training system. The traditionalist expects—even demands—the learning messages to be communicated in the classic fashion.

The audiovisual specialist, generally a technician, will object to your putting your hands on the equipment, but will concede to running the equipment for you. He also will attempt to call all the shots and camera angles.

You will be using a portable Video Tape Recorder, but the technical crowd generally snubs the portable (since it costs less than $1,500) as being non-quality, non-professional and not fit for use as a teaching and learning tool. Dr. Ed Bantell of Wayne State Department of Psychology has the answer for them. "The portable VTR is the



They see. They monitor. They criticize.

paperback or soft cover version of the so-called broadcast-compatible professional models."

It has been said that the paperbacked pocketbook opened to the masses unlimited access to the world of information and knowledge which had previously been locked up in expensive books in language they could not translate. Through paperbacks this information is now available at all levels of reading capability. Science, history, classics of literature are presented in comic books, are rewritten for those who read popular magazines.

The portable Video Tape Recorder can be developed in much the same way as the popular paperback. The price of the equipment is reasonable and its language is simple.

So much for the theory and background information which we consider to be helpful to understand the purpose and scope of this new technology product, the Video Tape Recorder. Let us proceed to describe it in actual application.

In the summer of 1966 the VTR was introduced in the Adult Basic Education Summer Institute Teacher Training Program. It was used in simulating actual classroom experience for teachers concerned with developing basic skills competence for functionally illiterate adults.

When the Video Tape Recorder is used in a training program for teachers and counselors who will work in adult basic education, it is assumed that the trainee has the necessary professional qualifications, at least on a theoretical level. In addition to academic knowledge of teaching or counseling methodology and previous experience in education, trainees must be aware of the psychological, sociological and cultural differences of the men and women whom they will be teaching. The ability to understand and empathize with the frustrations and the hopes of undereducated adults entails more than intellectual knowledge. Moreover, the teacher-counselor in adult basic education should be able to adapt to the subcultural level of the ethnic group he serves, to descend from his own intellectual rung when necessary, and meet his class on their common ground.

Unless he can achieve rapport with his pupils in this way, even the most competent educator cannot expect to do a fully effective job of teaching.

Therefore a basic problem of communication can be anticipated when the teacher of adult basic education enters his Adult Basic Education classroom with little exposure to the aspects of different cultures. The Video Tape Recorder can be used to analyze these behavior characteristics, and at the same time serve as a basis for a practical remediation-system for teachers and counselors of pupils of varied cultural backgrounds.

The role of the Video Tape Recorder is similar to that of the "Link Trainer" used in developing the flying skills of the airline pilot. This device provided a simulation of the environmental condition of flying, so that when the pilot moves from the simulator to the airplane, he has vicariously experienced some interaction with the elements of real flying. Following the same principal of simulation, recordings of actual situations in adult basic education were made on the video tape recorder and a system developed for tagging specific environmental behaviors, such as speech, facial expressions, gestures, clothing, evidences of hygienic habits. Relevant data was extracted from these tapes by replay for analysis and critique by fellow teachers, counselors and teacher trainers.

This technique is now being used throughout the teacher training program nationally and is producing results.

The potentiality of this VTR tool is capable of being extended to far broader areas than our simple piece of chalk.

This will be possible as long as you, the teacher, are able to work directly with this machine and to make those vulgar intrusions through the defense lines established by the media pros and the professional guardians of the measured handouts of the educational messages to the masses.

Mr. Herbert L. Nichols, a media specialist, is working with the NUEA-USOE-ABE program. He has served as consultant to various organizations including Goodwill Industries-Rehabilitation Program, and New York and Howard Universities.

Research and Testing

Presentation by John Armstrong

We are happy to present to you today our *Tests of Adult Basic Education* (TABE) designed to analyze and evaluate the needs of basic-skill education for adults who wish to continue their high school courses, vocational-technical training, or general literacy and self-improvement study. TABE establishes the level at which instruction should begin.

The *Tests of Adult Basic Education* are an evaluation system for individualized adult education. They are composed of Practice Exercises, a Locator Test, and Basic Skills Tests. They are an adaptation of the widely used *California Achievement Tests* for use with adults. They are both survey tests and analytical tests in reading, arithmetic, and language basic skills.

Three levels and two forms for each level will be available. Level D (Difficult) is an adaptation of the Junior High Level of the California Achievement Tests; Level M (Medium) is an adaptation of the Elementary Level. The third level E (Easy) is in preparation; this will be a primary level test. Manuals provide grade placement scores from grade two through twelve.

Each of the three basic skills are divided into two tests as follows:

Reading: Reading Vocabulary, Reading Comprehension.
Arithmetic: Arithmetic Reasoning, Arithmetic Fundamentals.
Language: Mechanics of English, Spelling.

Each test is further divided into categories expressed in terms that are meaningful to the examinee.

Special Features of TABE

Practice Exercises designed to encourage a positive attitude and to develop test sophistication; Locator Test to determine which level of the test to administer: Easy, Medium, or Difficult; *Scoreze* Answer Sheet that provides for quick scoring of the test, and for self-analysis of results by the examinee. This sheet also provides clues for the teacher as to remedial or development work needed. *Individual Response Record* shows the teacher and the examinee the specific test items answered correctly, incorrectly, or omitted. The items in the Record are grouped into meaningful categories for quick identification of weak basic skills areas.

Some of the uses of the Individual Response Record are:

1. To provide evidence of the adult's instructional or learning level in the three basic skills tested,

2. To evaluate an adult's growth in the mastery of the three basic skills,

3. To involve personally the adult's analysis of his learning difficulties,

4. To assist the teacher in charting for each individual the remedial or developmental program that best fits his needs, and

5. To analyze and evaluate specific areas of weakness in reading, arithmetic, and language basic skills.

The practice exercises can be completed and the Locator Test administered and scored in less than one hour for a class of thirty. The total administration time for the six TABE tests is 158 minutes for Level M and 176 minutes for Level D.

IBM 1230 Answer Sheets and Scoreze are available. The 1230 Answer Sheets may be either hand scored or machine scored. An Individual Profile Sheet, showing the analysis of learning difficulties, is available for users wishing to score the 1230 Answer Sheet, as is a transparent hand-scoring stencil. The latter greatly improves speed and accuracy in scoring.

The Scoreze Answer Sheet may be scored and analyzed by the examinee but not machine scored. The use of Scoreze increases self-improvement and self-understanding by examinees. It strengthens motivation toward both testing and subsequent learning.

Specimen sets are available to you from any of our offices. We will be happy to have your reaction to this innovation in Adult Basic Education evaluation.

Learning to become an adult basic education teacher is an education in itself.

Mr. John Armstrong, Regional Director of Professional Services for the California Test Bureau, has had over thirty years experience in education and guidance. He organized the Wisconsin State Teachers Placement Department, now the largest in the nation.

Hardware for Adult Basic Education

Presentation by Robert Johnson, William Vinson, Ronald Dozier

The General Learning Corporation as you may or may not know is the educational affiliate of Time, Inc., and General Electric. Francis Keppel, former U.S. Commissioner of Education, is Chairman of the Board and President. We are dedicated to the development of instructional materials and programs—programs that are new, innovative and thoroughly validated. Our focal point at this time is the exploration of program development that will have an impact on reaching people who for one reason or another have been deprived of the opportunity to learn. Therefore, we are deeply involved in the development of early learning, vocational education, adult basic education and other areas. We are also interested in exploring the use of hardware to assist us in the presentation of these materials. This is what brings us here today.

Our purpose is to demonstrate to you how the General Learning Corporation is using this equipment at the Ben Franklin High School in Harlem and three Montgomery County schools outside Washington, D.C. We have developed a number of modular courses in arithmetic facts, simple addition, subtraction, etc. These have been transferred from a computer in Bethesda, Maryland to the computer here in Detroit. We will attempt to teach you the fundamentals of a computer logic known as "Basic." This will enable you to sit down at the teletypewriter and communicate with the computer. You will have the opportunity to either call on an existing program or insert your own. It is not likely that in the time allocated you will become a computer programer, but you will have discovered that this monster is not a monster at all, but another piece of hardware that could have a place in your classroom.

We will now break up into small groups for the purpose of offering you the opportunity to have "hands on" the computer. Good luck.

General Learning Corporation was represented by J. Robert Johnson, Associate Director, William Vinson, Senior Consultant, both of the Educational Services Division, and Ronald Dozier, Educational Systems Measurement Specialist.

Skill Training at Michigan Bell

Presentation by C. Glenn Valentine

The skills required by telephone technicians cover a wide range of complexity. They vary from climbing poles to locating a trouble in a multi-million dollar real-time computer called an electronic central office. Our courses of instruction range from one 8-hour day to 26 weeks or 1040 hours. Most trainees are in class five days a week. Certain complex courses may entail as few as six men a year; a course, such as Basic Installation training, may enroll as many as 300 men a year. (A safety course, such as Driver Training or First Aid, may have 2000 trainees in one year.)

The training department at Michigan Bell is attempting to make use of the latest instructional and behavioral technology in order to develop and operate this training center. Our goals are to provide fully individualized training, with continuous participation by each trainee and comprehensive evaluation of both the trainee's progress and the effectiveness of the training program.

Our developmental staff follows charted guidelines to construct new training courses. Individualization is achieved by self-pacing, use of diagnostic testing and unitization of the course. Self-pacing allows each learner to advance at a rate best suited to his learning capability. Diagnostic pretesting permits both a check of prerequisite abilities and criterion behavior previously acquired. Thus, if prerequisite skills are missing, the trainee may be given prerequisite programs. If some criterion behavior is already in the trainee's repertoire, then this aspect of training may be omitted from that trainee's course. Diagnostic post-testing indicates where review is needed to acquire the desired behaviors. All materials are unitized; that is, broken into short meaningful units. Thus, after pre- and post-testing designate behaviors to be omitted, learned or reviewed, appropriate units may be selected for these purposes.

Continuous participation is achieved by expecting overt responses and changing the learning environment as often as is practical. Thus, trainees do not become bored due to long sessions involving similar responses over and over again. Review units and tutoring are used to keep failure experiences at a minimum and to minimize frustration.

Comprehensive evaluation involves continuous feedback to the trainee to stimulate his progress. This is achieved by confirming all overt responses as soon as possible after they are made, and by giving self-scoring progress tests as often as practical. Performance tests are given periodically to determine if criterion behavior is being acquired. Units are revised based upon trainee feedback, through both the instructor's tutoring function and the performance test results.

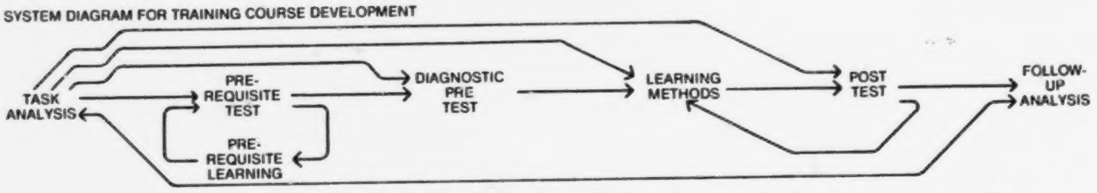
Figure 1

PROGRAMMED LEARNING FEATURES

1. LEARNER ACTIVELY PARTICIPATES (CONTINUOUS RESPONDING).
2. EACH CORRECT RESPONSE IS IMMEDIATELY CONFIRMED (REINFORCED).
3. PRE-STRUCTURED AND PRE-PREPARED TRAINING MATERIALS
4. SELF-PACED BY EACH LEARNER.
5. TRAINING MAY BE TAILORED TO FIT INDIVIDUAL NEEDS
6. SCHEDULING OF TRAINING CAN FIT INDIVIDUAL AVAILABILITY.

Figure 1 shows some of the main features of programed instruction. These features give some reasons why programed instruction is used in most of our courses. The goals of individualization, continuous participation, and comprehensive evaluation are met by most programs. Features 5 and 6 have proved especially important in the individualization goal, since we can select and reject program units for *each* trainee, and this may be done at any time he is available to take the training.

Figure 2


SYSTEM DIAGRAM FOR TRAINING COURSE DEVELOPMENT

A systematic approach allows a trainer wide scope. *Figure 2* provides a simple diagram of some points in a "system" for developing a learning unit or course. More will be said later on learning methods, but a first requirement for any learning experience is some form of task analysis. The success or failure of the entire effort will depend on the relevance and completeness of the objectives. A task analysis provides these objectives. At Michigan Bell we use both the task analysis and the follow-up analysis to finalize our objectives, which are determined by consensus of experts and a diagramming technique called "latticing." From these somewhat arbitrary objectives, we developed draft tests and learning units. Our first few groups of trainees are then "followed" into the field to make an analysis to determine which terminal behaviors are actually used on the job and what behaviors might be required on the job which were not included in the original analysis. From this follow-up analysis, information is obtained to modify and up-date the original objectives.

New learning instruments create a new image in the classroom.

Figure 3 provides a brief list of the steps in putting together the arbitrary objectives as part of the original task analysis. These objectives are written by a team of one or more instructional specialists and one or more field experts. This original list of objectives is somewhat arbitrary but will be reasonably close to a comprehensive set. Later, the follow-up analysis should be used to revise or replace any objectives that may have been misstated or eliminate those that have been judged unnecessary.

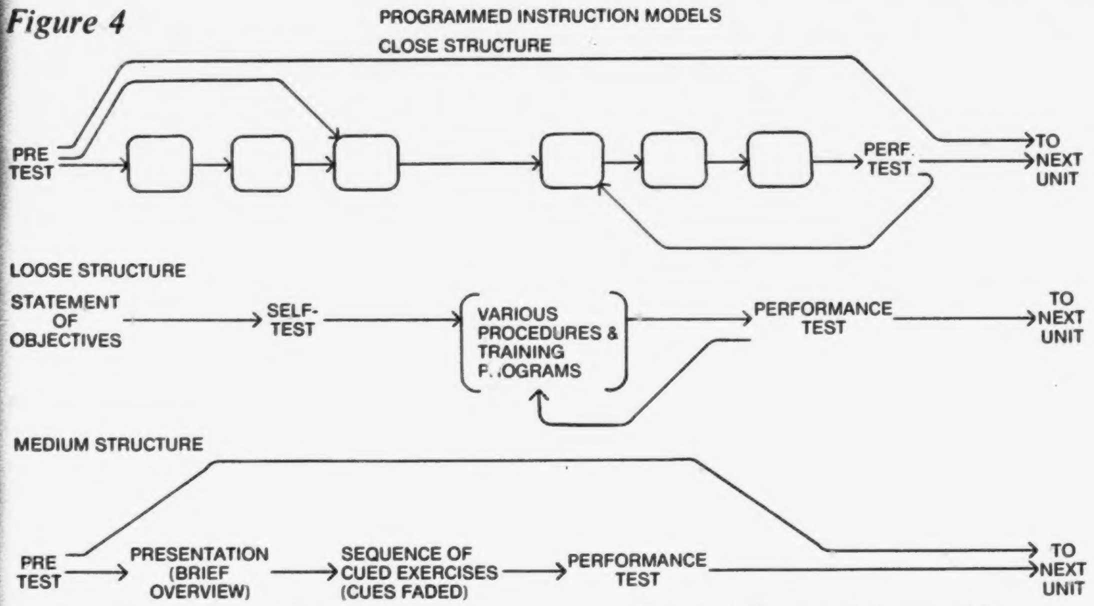
In the development of learning programs, some key factors to be considered are the conditions under which learning occurs. The learning situation may be real, simulated, or artificial. The need to transfer learning to real world conditions and budget problems usually forces a compromise between real and artificial learning situations. Sometimes, simulation can be as effective as real world situations without being so costly. Communication is very critical and selection of a proper medium should again be determined by the need to transfer learning to real world situations. The medium should aid in this transfer. It is also important that learning units emphasize the learner-to-teacher communication rather than the conventional emphasis on teacher-to-learner communication. Response patterns are extremely important since provoking isolated responses often has very little effect on real world behavior. In the real world responses occur as part of long sequences or patterns of responses; therefore, learning sequences should be developed to produce similar response patterns in the learners. Both verbal *and* non-verbal responses should occur. There should be many overt responses, and feedback should immediately tell the student if he is correct. Relevant covert or thinking type responses will occur if the overt responding is interesting and relevant to the learning. Finally, conditions for learning should include evaluation. The trainee needs self evaluation such as provided by progress testing. Pretests and criterion tests determine changes in behavior, and follow-up measures insure relevance of the behaviors.

Figure 3

TASK ANALYSIS

1. LIST WHAT A LEARNER SHOULD BE ABLE TO DO AS A RESULT OF THIS EXPERIENCE.
2. LIST WHAT A LEARNER SHOULD BE ABLE TO DO BEFORE BEGINNING THIS EXPERIENCE.
3. UNDER WHAT CONDITIONS WILL LEARNER DO THE THINGS LISTED IN 1 AND 2.
4. STATE A MEANS BY WHICH THE ACCURACY AND COMPLETENESS OF EACH RESPONSE (things learners do in items 1 and 2) CAN BE MEASURED.

Figure 4


PROGRAMMED INSTRUCTION MODELS
CLOSE STRUCTURE
PRE TEST
PERF. TEST
TO NEXT UNIT
LOOSE STRUCTURE
STATEMENT OF OBJECTIVES
SELF-TEST
VARIOUS PROCEDURES & TRAINING PROGRAMS
PERFORMANCE TEST
TO NEXT UNIT
MEDIUM STRUCTURE
PRE TEST
PRESENTATION (BRIEF OVERVIEW)
SEQUENCE OF CUED EXERCISES (CUES FADED)
PERFORMANCE TEST
TO NEXT UNIT

The actual learning unit may vary over a wide range of styles. *Figure 4* provides three techniques where the response sequence has varying structure. The top model uses close structure similar to the linear programed instruction unit. In this model, pretests and performance tests are used to determine before and after behaviors. If some terminal behavior is found at the start of the unit, then appropriate groups of responses may be omitted or skipped by the trainee. If weak areas of terminal behavior are identified on the post-test then certain groups of responses should be reviewed. In this model the responses are carefully constructed, and each response is made by all learners in the same sequence.

The middle model provides a loose structure of responding. In this model, objectives and a self test are provided. Also, all existing procedures and sources of information to aid the trainee are listed and given to him. The trainee selects his learning program, procedure, or possibly asks questions of the instructor. When the trainee feels he is ready, he asks for and is given a performance test. If he does meet the requirements of this test, he is given the next unit. If he does not meet the test requirements, then he reviews the materials and again when he feels he is ready asks for another performance test.

The lower model is a medium-structured response sequence. This model can be developed fairly fast but has many advantages for learners who need some help in moving through the learning material. In this model, a brief description of the responses to be learned is provided after the pretest. Following this brief overview is a sequence of exercises. Each exercise includes most of the terminal responses required but the beginning exercises have many prompts or cues. Each succeeding exercise has less and less cueing until the final exercise which has no cues or prompts. This is a criterion frame or exercise. This criterion frame is a sample of the performance test. All the exercises and the criterion frame are self scored. After the criterion exercise a performance test is given and, in most cases, this test is passed since it is an alternate form of the criterion test. If the trainee fails the performance test, then he repeats the unit.

It is important to note that all three models in *figure 4* refer to the events or content of the learning methods block in *figure 2*. Before the units are started, the task analysis and pre- and post-testing development should be completed. Obviously, the follow-up analysis may change all the content of the tests and learning units. It is interesting to consider that one may develop a loose-structured unit (middle model, *figure 4*) and then learner feedback may dictate the development of many exercises and a presentation. Thus after several trainees have completed the unit, it has become a medium-structured unit. Then as more and more exercises are needed by the learners, ultimately a close-structured unit or linear program could appear. It is possible that a training course of several units could consist of units of all three types after several pilot trials.

This provides a rough description of the rationale and guidelines used by the staff at the Michigan Bell Plant Training School in Detroit for developing technical training courses. All of these techniques and course descriptions have been used to some degree. There are many barriers and frustrations between theories and methods and the actualization of a fully optimal training course. Probably the most important common feature of our staff is a commitment to such theories and methods. Thus, when problems arise, there always seems to be enough ingenuity and drive to find an answer so that the basic goals do not have to be compromised. If any given programed instructional technique fails to work, then we seek an alternate format or new style which will work. So far, we have found a way out of dilemmas without going back to group-paced instructor-oriented methods.

Following this presentation, a tour of the classrooms and training facilities was conducted at the Michigan Bell Central Plant Training School.

C. Glenn Valentine is Business Systems Supervisor now attached to the Bell Telephone Laboratory at Holmdel, New Jersey. An electronics specialist, he was with Michigan Bell at the time of this presentation.

The Educational Development Laboratories Learning System

Presentation by Thomas Gately

On each of two evenings, Monday, May 22 and Tuesday, May 23, 1967, Educational Developmental Laboratories conducted a two-hour demonstration seminar in the systems approach to adult basic education at the Adult Basic Education Institute, Wayne State University, Detroit.

Participants in the demonstration were thirty-two adult basic education students from the city of Detroit. About 125 delegates to the Institute observed the students as they moved through a typical learning cycle selected from the first reading level of the Educational Development Laboratories Learning-100 Adult Basic Education System.

Each evening the observers noted that in a typical Learning-100 lesson cycle, students are first grouped as an entire class. In this first phase of the cycle students are not measured by their performance in the group. Rather, they compete against their own performance in their ability to visually discriminate among numbers and letters projected in an accelerated fashion. The observers noted that in this phase the instructor could immediately identify students who had difficulty recognizing letters and numbers and could provide immediate remedial instruction from appropriate materials within the Learning-100 System.

In the second phase of the cycle, observers noted that the Learning-100 systems approach provides for individualized instruction. Students were divided into small groups, according to ability level, and directed to respond individually to new sight words displayed in an audiovisual context. This phase of the cycle introduced new sight words to each student according to his level and, with instant feedback, measured his ability to recognize and respond to these words on the screen and in his individual study guide. Here again the instructor could quickly note student progress.

After the word introduction phase of the cycle, observers saw the four groups rotate to a third phase. In this third phase each student responded rapidly on sight in activities designed to shorten the time it takes him to recognize and write down individual words previously introduced in phase two. Once more student response was instantly observable.

After the sight recognition phase of the cycle the system moved students into processing rapidly projected known and recognized sight words into ideas. By simple and direct questions taken from the Teacher's Study Guide, it was possible to decide whether each student was actually processing words into thought concepts.

Subsequent to the processing phase of the cycle, individual groups were moved to phase four—controlled reading stories. These stories were projected in a left to right fashion at speeds commensurate with the students' ability to read and to comprehend. Words used in the controlled reader stories were those previously introduced and checked in the current cycle, or they were a repetition of words learned in earlier cycles. Each student responded to questions which measured his comprehension of the Controlled Reader story.

In the final phase of the cycle, the students were provided with independent reading materials, which permitted them to read on their own and to demonstrate their ability to recognize words and comprehend ideas when presented in high interest, adult level, low vocabulary stories.

During the Thursday, May 25 meeting the Educational Developmental Laboratories staff pointed out that basic and funtional illiteracy among adults can be traced through the pages of American history. Up to this point in time, no system had been developed to teach the functional illiterate to read and to write. New technology has made it possible to develop a learning system which combines various principles of educational psychology into a systematic and programed approach to the development of reading comprehension. The system starts with word introduction, goes on to sight recognition of new words, and continues with the gradual processing of words into concepts.

In presenting the characteristics of an adult basic education system, Educational Development Laboratories representatives pointed out that it must be developed specifically for adults, that materials must be of high interest, and that they must be systematically introduced and repeated in various contexts. Further, such a system must provide continuing opportunity for the student to respond, to measure his own progress, and to proceed at his own pace. Finally, a well structured Adult Basic Education System must permit student entry at various ability levels, must take the student to at least the sixth reading level, and must provide constant opportunity for the instructor to measure student progress and recycle him at any point where his progress is retarded.

Listening is an important part of the communications skills taught in the ABE curriculum.

Mr. Thomas F. Gately is Director, Federal Programs for Educational Development Laboratories (McGraw-Hill, Inc.). He has assisted the development, introduction, instructor training, and evaluation phases of multi-media learning systems for functionally illiterate adults.

nnovations in Managemen

A program cannot be successful if it is not administered creatively. Wise management needs careful forethought coupled with a willingness to experiment, reception to new ideas, and experience. This concluding section conveys the thinking of several experts who have analyzed various elements which make an adult basic education program tick.

Federal Government Role In Adult Education

Presentation by Jules Pagano

I would like to talk a little about what I think is of vital concern in the area of adult education, and in some ways this reminds me of a very good, healthy, middle class story about two Boy Scouts who were off on their long week-end hike. Finally, one turned to the other and said—"Speaking for myself, I'm trustworthy, I'm loyal, I'm helpful, I'm courteous, I'm kind, I'm obedient, I'm cheerful, I'm thrifty, I'm brave, I'm clean, but to tell the truth, I'm LOST!"

Well, there are ways in which all of us in adult education today are those very things. We've more than proved our credentials; we've more than proved our value and our crucial role in education. But we're lost in the sense that we do not know exactly the demands that are being made upon us as professionals. We are not sure of priorities established for us by forces outside our own profession, outside our educational sphere. I'd like to suggest that there are forces at play determining who we are, what we are, and what we're going to do. One of those major forces is the force of federalism. That does not necessarily mean creative federalism because I'd like to share with you the definition of creative federalism. Creative federalism is what we term a federally sponsored program that is successful. When it's not, it is plain, ordinary federalism. I believe that we are involved in creative federalism. At this point in history, adult education illustrates what we really mean when we talk about creative federalism.

But let me see if I can't talk a little bit about the sort of pressures, concepts, factors and forces that are at play in America today. There is one major national disgrace in education. It is not the public school system, it is not curriculum, it is not testing, it is not the number of students who are able to prepare themselves to go on to higher education. It's not the question of how well we are able to re-school and educate the professionals in our society. Our national disgrace lies in the fact that we have pretended for a long time we have no illiterate Americans. We have a "schooled" illiterate America; an America that is not equipped with the basic, fundamental, minimum requirements of citizenship—the fundamental schooling for citizenship.

Our society is not willing to accept the failure of the great American public school system. We all are afflicted with the tremendous idealism that our successful institutions cannot fail. In the past we did not consider the illiterate a national disgrace. There have always been some kinds of positive roles for these persons to play. The great tragedy today is that this is no longer true. We don't really want to know that there are eleven million Americans who are illiterate; we don't really know just how many are truly functionally illiterate. And we don't want to know.

We want to really believe in the great dream. We want to believe that our familiar institutions have produced for us the opportunities, the quality education, that have always been a part of the pattern of our society.

We have failed to carry out (what has been) the mandate of our free society. In a free society we share responsibility. By sharing responsibility we make it possible share all opportunities for rsonal and social development. e are not aware of our full sponsibility because until now it s not achieved crisis proportions. nd because we are so well-off mpared to everybody else in the orld we can't fully understand hy we should be criticizing urselves for failure to be perfect.

We have the great opportunity day in our society to do what no ther society in the world has been ble to do—to make it possible for very human being to participate a technological society. We have technology in every sense—the uman resource sense, the cientific sense, the human lations sense. We have the chnology and, above all, we have at promise of America, the rule at makes it possible for every itizen of America to participate in ur technological world. If we on't put that rule into effect, then e shall have a society which will evert back to the Romans and the reeks. We would then be a great ociety with special "charges"—or all them slaves as the Greeks and omans did. They will be charges n society toward whom we do not eel a responsibility to do something bout their ability and their right o participate in our society.

That is not the answer. The nswer must be something more ike a total war for what we know ve can do; that is, to pass on undamental concepts of basic education to enable us to make every American a literate American. We must provide everyone the necessary tools for participation in our society so that everyone may have the capacity for communication each with the other —and each one can make some sense, in some way, about the world about him.

What is the federal role here? The federal role is to minimize the "charges" on society, and to make everyone as productive and as much a positive part of society as possible. That's the commitment of the Federal Government.

How do we get away from wasting our resources on welfare; wasting our resources year after year on people who are unable to join society productively? How do we solve the problem of poverty once and for all, not only for the short-run but for the long-run? How do we make education not a "preparation" for life, but a *part* of life, make it a positive value?

The most crucial step in solving the problem involves basic education. It is one of the great accidents of history, the sheer absolute accident, that we had some luck last year when OEO was having some problems and the Congress wanted to do something more in education. The Administration wasn't asking for anything more in education and no one knew quite what to do with the adult basic programs. The public schools were doing pretty well, but OEO said the schools alone couldn't handle adult basic education, and no one knew what should become of the program. Suddenly, out of nowhere, a people's lobby developed. Letters were written to the White House saying, "Dear Mr. President—This is my very first letter that I have written in my life. I'm writing to tell you that it was Federal dollars that have made it possible. I hope I'll be able to continue." Although the handwriting and the spelling were shaky, this was a first letter in many respects. This people's lobby is the most powerful movement we have in this country. It shows what can happen when the people act out of a personal need.

We must put our human resources to the greatest possible use.

Senator Wayne Morse had grabbed on. "It's a great opportunity to establish adult education in the United States— under Federal legislation." And the Adult Education Act of 1966, as you well know, was not enacted as the Adult Education Act, but was passed as an amendment to the Amendments of the Elementary and Secondary Education Act. The curious thing Senator Morse said about the Act was: "We'll establish adult education in the United States because the time is ripe. We know it's needed, but the only way we'll get it through this Congress, without the full support of the Administration for a new Bill is by attaching it to the Elementary and Secondary Amendments." Remember, the Bill did *not* have Administration support; it had people support. You're part of a people's activity. And Wayne Morse said simply then—"Congress can't vote against kids in elementary and secondary schools." So the adult education law was passed.

Now it has become part of our laws, and the Congress *does* know what it is all about. This year's debate was very interesting. The Administration has discovered that there is such a thing as the adult education problem and is now tremendously concerned about it. And it does know that people can and will respond to opportunities for their own human development.

The Administration has seen the numbers of people who participate. They've seen the school doors open, the church doors open, the community halls open. They've seen Centers established and they've seen the public schools of this country move ahead and spend tax dollars efficiently trying to reach the adults of America who are still illiterate.

The Administration understands the need to share the responsibility of erasing a national disgrace, and the opportunity to construct a whole new body of knowledge about how to deal with adults. There's a new recognition— a new challenge here. There may be persons who, as prophets of doom, will read the riot act that all we're doing is irrelevant and is not important. But in the final analysis, we know very well that we're involved in an important step forward in the educational field. You are about to make this activity gain new recognition on campuses throughout the country. In higher education, the adult educator becomes the problem-solver through the process of bringing people into society and enabling them to work together. You can make education a true value for this generation so that the next generation can inherit it; you will become the value-makers by establishing values in our society—existentially—by your activity. And you will establish in the public school system of America a new role and a new status for the adult educator, the administrator, the teacher, and for the community developer and counselor.

Let's think about this in closing:

We can no longer afford technological breakthroughs that do not consider the cost imposed on the human system in which they operate. We need people with the courage and perspective to repair the damages of the past, to look ahead before the crisis occurs, and to seek creatively a society that measures up to the new and higher expectations. This is what you are involved in. You're involved in trying to repair the damages of the past, and you're involved in looking ahead before the next crisis occurs. The institutions of higher education, the public institutions, the various phases of the community today all seek together to create a society that measures up to new and higher expectations—expectations that are *free* in the land.

Mr. Jules O. Pagano was the first Director of the Division of Adult Education, U. S. Office of Education. A former Fulbright scholar, he is now vice-president of Greenleigh Associates.

Response

Presentation by Robert J. Pitchell

In response to Mr. Pagano, I wish to make two points which expand on his remarks rather than contradict them.

First, a significant aspect of the learning process involves an emotional component, one part of which is motivational and another related to emotional growth. Too often in the past we have concentrated on the motivational aspect. The counselor or teacher who depends solely on developing motivations in his students, in many cases will find that they cannot cope with the subject matter no matter how highly motivated. Other emotional barriers to learning exist.

The proportion of the emotional component in the total learning process appears to vary in accordance with age and previous learning achievement. It appears to become less significant with advancing age and with increased learning achievement.

This means that for the student who progresses "normally" through the regular school system, emotional development plays a smaller role in effective learning in the eighth grade than in the first, in the twelfth grade than in the eighth, at senior college level than at senior high school, at graduate than at undergraduate level.

Where intellectual growth stops, regardless of whether a person drops out of school or not, the emotional component undoubtedly remains as a high proportion of the total learning process. This means that in adult basic education, the students can neither be taught as young children nor as adults who have progressed to advanced intellectual levels. Every teacher must realize that at the beginning of the training cycle the ABE student requires emotional satisfaction and growth as a significant part of his training.

My second point is that all effective learning takes place at the point of confrontation between teacher and student and/or instructional medium and student. All other activities at local, state and national levels are supportive

Adult Basic Education has tremendous possibilities for the Nation.

of that situation. None can substitute for the teacher or the instructional medium. Effective planning and administration at federal, state and local levels make it possible for the confrontation between teacher and student to take place, but all who are involved in planning and administration must realize that they will have failed if they do not make certain that the teacher is adequately prepared for his job and gets the continuing support he needs to deal effectively with the adult illiterate in his charge.

Dr. Robert Pitchell, Executive Director of the National University Extension Association, was formerly with the Federal Extension Service. He has also served as President of Roosevelt University and on the faculties of Purdue and Indiana Universities.

rganizing and Administering State and Local Education Programs

Presentation by A. T. Houghton

I. In organizing and administering state or local Adult Basic Education programs we should never lose sight of how this program finally received Federal funding.

  A. Originally Adult Basic Education received very little congressional support.

  B. It was not until the Economic Opportunity Act was passed in 1964 that Congress saw fit to fund Adult Basic Education classes. Therefore, it behooves us to continually bear in mind:

    1. That we were originally part of the Anti-Poverty Bill and would never

Eliminating a national cause of poverty—under-education—is a community-wide effort.

have become a national program if it were not for the presidential and congressional efforts to eradicate poverty.

2. That annual congressional hearings continue to emphasize the fact that this program is intended primarily to serve those who live in poverty or in jeopardy of poverty.

3. That primary emphasis be placed on identification and recruitment of the hard core of the under-educated.

II. If the public school is to be successful in its drive to eliminate "lack of education" as a national cause of poverty it must enlist the total community in the process of identifying and recruiting undereducated adults who need basic education.

This community-wide effort, if it is to be effective, must involve:

A. Public agencies such as social welfare, local health authorities, state employment offices, public housing authorities.

Voluntary agencies such as the National Association for the Advancement of Colored People, the Salvation Army, the Urban League, Young Men's and Young Women's Christian Associations, which can communicate with the undereducated in the community.

C. Other community agencies such as labor unions, business and industrial firms, the communication media, and federally aided programs such as community action agencies, work training, work experience, etc.

III. If the public school program is to attract, hold, and educate the adult student it must run a program that is extremely "flexible."

A. The physical facilities must be conveniently located.

B. Classes must be sufficiently small to enable individualized instruction.

C. Classes should be organized at the convenience of the members of the class and not at the convenience of the school system.

D. The school district must stand ready to offer both day and evening classes.

E. School district boundaries should be eliminated.

F. Programs should bear very little relationship to the public school calendar unless it fits the needs of the adults.

G. Programs should be administered and supervised by people who are thoroughly familiar with the teaching of the basic skills.

H. Programs should include instruction in such "social living skills" as consumer education, health, parent and family life, and responsible citizenship.

IV. Every public school program in the adult basic education field must involve counseling and guidance services in depth.

A few examples of the kinds of services properly trained counselors can render are:

A. Assist with the pre- and in-service training of teachers.

B. Assist with the registration and original placement of adults.

C. Establish and maintain procedures for follow-up of absentees.

D. Maintain personal folders on each adult.

E. Be available to handle problems through individual counseling.

F. Conduct group counseling sessions on such topics as consumer education, health, responsible citizenship.

G. Act as liaison with public or private agencies who can, in any way, assist the underprivileged.

H. Establish close association with adults in the upper level group for placement counseling after the eighth grade level has been achieved.

I. Always stand ready to assist the adults to make the quickest possible use of their new-found education.

Mr. A. T. Houghton is Chief of the New York State Bureau of Basic Continuing Education. He has served education as a teacher and administrator for more than thirty years.

Management of Programs

Presentation by Donald Butcher

"If a nation expects to be free and ignorant . . . it expects what never was and never will be" is an often-quoted observation of Thomas Jefferson. Madison also shared this concept of education's role in a democracy. Uttered in 1782, the years have added great sanction to his words, "A popular government without popular information . . . is but a prologue to a farce or a tragedy or both. Knowledge will forever govern ignorance and a people who need to be their own governors arm themselves with the power which knowledge gives."

These time-worn but profound statements cogently summarize one of the challenges facing adult education today. The importance of assisting adults to develop to their maximum potential is regarded as a top priority by our state and national leaders.

Adult basic education is, in some ways, a very young program. It has its roots in the old Americanization classes that were developed in the early 1920's when there was a heavy immigrant population. In fact, Detroit established a literacy program as early as 1875. Only very recently has this program received any significant impetus from the financial assistance provided by the Federal Government.

Let us briefly review the Michigan plan of adult basic education, how it functions, some unique characteristics, and implications for adult basic education teacher training institutes. Public schools in Michigan cherish a tradition of local control of the educational program. This is evidenced in an official statement of the Superintendent of Public Instruction in Bulletin No. 364:

> Though we strive for common objectives and are united and dedicated to the purpose of educating free men for a dynamic, democratic society, we believe that the program of any school can best be determined by the people living in that school community with the help of competent, experienced educators and technical personnel having a broad, comprehensive knowledge of educational needs at the local, state and national levels. There are those who would use prescribed courses of study for all school districts. There are those who contend that all educational programs

should be determined by some central authority either at the state or federal level. We regard such attempts at standardization as unwise and incompatible with the democratic ideal.

In view of this somewhat unique hilosophy of local control and etermination of education, it is rtain that local educational gencies will exercise wide latitude the types of programs to be ffered in adult basic education.

The Michigan Department of ducation has been using Federal nds for local adult basic ducation programs since ebruary 3, 1965. These funds had een coming to the State epartment of Education from the . S. Office of Education via a rant from the Office of Economic pportunity. As a result of a 1966 mendment, the adult basic ducation program has now ecome the Adult Education Act f 1966.

Generally, basic education is esigned to provide elementary vel education for adults, placing pecial emphasis on reading, riting, speaking and arithmetic, s these skills relate to such adult xperiences as getting and keeping job, consumer buying practices, health habits, relationships with other members of the family and community, homemaking and citizenship responsibilities. There are large numbers of adults in need of these skills who are unemployed, discouraged and trapped on the treadmill of poverty. They are unable to meet adult responsibilities or to qualify for training to develop their potential skills. Basic education is intended to be a first step to prepare adults for more comprehensive vocational and occupational training.

Data provided by the U. S. Census Report indicated that in 1960, there were 254,327 adults in Michigan over 25 years of age with less than five years of formal schooling and 754,546 of like age who had not attended more than eight grades.

The Pre-Institute Seminar brought together experts in curriculum, technology, and management.

In 1964-65, the first year of the program, the Michigan Department of Education received $531,438. Thirty-two school districts served 5,500 functionally illiterate adults during this first year. In 1965-66, the Michigan allocation was $1,104,042; and sixty-three school districts served 10,123 adults. In 1966-67, Michigan was allocated $756,943; and eighty-two local school districts served over 14,000 adults. Forty-seven of the eighty-three counties in Michigan are served by adult basic education programs in operation. Altogether, some 29,213 persons have participated in adult basic education programs in the past two and one-half years.

To those who are in need of basic education, especially the younger citizens, an incomplete education means:

(a) As workers, they are less and less able to meet the rising levels of skill demanded by our improving technology. They are inevitably the last hired, the first fired, and the perennial consumers of our welfare budgets. They lack the basic educational means to take advantage of vocational retraining programs, and become an increasingly larger and harder core of chronically unemployed.

(b) They are less and less able to provide the parental guidance their children need in the face of the growing complexities of modern urban life; and, under these circumstances, their lack of education diminishes the stability and the beneficial influences of our nation's families whose vigor undergirds our national virtue. This becomes a vicious cycle of the undereducated perpetuating more undereducated.

(c) They are readily exploited by those who prey upon the ignorant and the gullible. They find it difficult to protect themselves, their families, and their communities from irresponsible or malicious propaganda.

(d) They are less resourceful in using wisely the increasing hours of leisure which improved technology and increasing longevity are providing.

(e) They provide a weak and shifting element in the foundation of citizen understanding upon which our national leaders depend for support in the complex decisions of the day.

Federal interest in adult basic education has been helpful, but an equally important factor contributing to rapid expansion of adult basic education programs was the removal of the age limit for state aid reimbursement by the Michigan Legislature in the fall of 1964. This allows local school districts to receive state reimbursement for all adults taking credit courses to earn a high school diploma. This action increased the number of school districts offering programs from 49 in 1963-64 to 90 in 1966-67. This legislation has allowed a free high school education for everyone in Michigan, regardless of age. It has resulted in increased enrollments in adult high school credit courses from 30,746 in 1963-64 to over 98,000 in 1966-67.

If adult interest is to continue to expand and develop, teachers must be trained to handle the variety of problems that adults present. Teacher training institutes become an integral and necessary part of a good adult education program. These thoughts were first offered by Russell J. Kleis, Professor of Adult Education, Michigan State University, at Michigan teacher training workshops. I personally believe these nine ideas as presented by Professor Kleis need to be continually reinforced for teachers of adult basic education.

1. We must always deal in respect, treating our students as the very human persons that they are.
2. We are involved in the intricacies of psychology, sociology, and philosophy, as well as with the content and mechanics of the subject that we teach.
3. Therapy is a large part of our task. Many of our students need not so much to be invested with new knowledge,

skills, attitudes, and values as to be divested of old ones.

Our work requires unique efforts in counseling and evaluation.

Seeking constantly for the better tool, we must not fall into the trap of believing that there is one right tool—one simple system. Whenever problems are complex and knowledge primitive, there is fertile territory for the charlatan, the quack, the medicine man. Rather than seeking the one right tool, we face the task of selecting a chest full of tools and preparing ourselves to make proper selection and appropriate use of each.

6. Force is always involved in education. That force may take the form of love of learning, the desire for increased earning capacity, the requirements of a job, the needs of a family, the discipline of one's faith, or the laws of one's community.

7. We must earn and hold the confidence of the disadvantaged adult against great odds. Past experience and contemporary social facts of life persuade many of our students that teachers and the institutions within which they work are not readily trusted.

8. We have many allies and we desperately need them all. A major part of our task involves the perfection of strategies for cooperative and collaborative work.

9. Whether we win status, promotion, or other external rewards, we are in a struggle that is one, old and persistent; two, of crucial significance; and three, possible of winning.

Our entire nation rests heavily upon one fundamental assumption, that man is in large measure in control of his own fate. Our political system is based upon this assumption; our economic system is based upon this assumption; and certainly, our educational system is based upon this assumption. In adult basic education, we are fundamentally and essentially involved in a struggle to bring into the mainstream of American life those who have for one reason or another been left out. We are dealing with people, many of whom have given up. These people must be given new hope.

It seems to me that each of us must accept some responsibility for this plight. If the great American dream is to come true, we must come to grips with and solve the problems inherent in illiteracy. Basic education has to be viewed as but the first rung on the ladder that eventually allows an individual to lead a more useful and satisfying life.

Dr. Donald G. Butcher is State Coordinator of Adult Education and Community Services in Michigan. He has served on the education faculty of Northern Michigan University and as Director of Community Education, Flint Public Schools.

Prejudice and Adult Education

Presentation by David Weiner

To some extent all people have different backgrounds and all contacts between people involve clashing values and beliefs. The greater the differences between people, the longer the time and the more concentrated the conscious effort must be to establish rapport.

Students of adult education come from very different socio-economic, and often different ethnic, backgrounds than do their teachers. They usually come from the lowest educational, occupational, and income levels, and from ethnic groups which are subject to constant negative evaluation by many members of the dominant subcultures in contact with their own.

It seems logical to expect that considerable time and effort must be allotted to the task of establishing a milieu in which learning will take place. Such a milieu is based necessarily on rapport between teachers and students. The teachers are symbols of the America students would like to feel they are members of. Students feel threatened not only by the demands of a society in which they feel inadequate, but also in the face of the prospect of change—which is what education represents for them. The teacher is for many the only means toward assimilation.

Time and consicous effort, however, may not be sufficient to establish the milieu essential for successful realization of the goals of adult education. The ideal situation, which assumes that students and teachers alike actively work to promote rapport, overlooks two important factors, both of which work against the realization of goals. First is resistance on the part of students to give up old ways and ideas in favor of new ones. This resistance is made up of equal amounts of fear and mistrust of the new, and strong attachments to the old. The second factor is resistance on the part of teachers to see their students objectively and to accept their problems as real and valid.

To the extent that new knowledge implies that new values and attitudes must be developed, such knowledge can represent a threat at the same time that it represents hope. Understanding the potential threats of knowledge can help teachers to understand why their students resist learning, but even this awareness often seems not to be sufficient to ensure that teachers will relate to students with warmth and acceptance even though they realize that such acceptance is a crucial part of the teaching process. For only when students feel sure that they will be accepted by people like the teacher will they feel completely comfortable about giving up old traditions and old securities.

The term "prejudice" has been used so often in an accusatory manner as to lose its original connotations which imply either favor or disfavor. Thus one may be prejudiced in favor of one's family, against apples, in favor of tweed but against sharkskin suits, in favor of the hometown football team and against the rivals. The only people without prejudices are those without feelings and ideas of their own—ego-less individuals who float with the tide. Having prejudices is consistent with having strong feelings and convictions. Thus prejudice *per se* is not only not bad; it is a necessary and valued manifestation of basic human characteristics.

However, like all other attitudes, prejudicial ones must be viewed in the context of an individual's reality. It is understandable, for example, that one might be prejudiced against apples as a matter of taste, but not in the role of grocer. It makes sense to give preference to one's family in many instances, but not to the extent that it means excluding all others. It is one thing to favor the home team but another to despise the opposition. Even the fairly mild of "booing" is reacted to atively in most places.

These examples show that judice implies more than ional appraisal and classification individuals as members of ups (an apple is like all other ples, all members of the other m are rivals and therefore ke); it implies judgment of lividuals as members of groups scales of superior-inferior d/or bad-good (apples not only not taste as good as oranges, y are an inferior fruit; our team superior to that of the rivals—if win it is skill but if we lose it is d luck or the other team's terfuge).

To the extent that individuals are correctly identified as belonging to hostile groups, negative reactions do not consitute prejudice, unless: (1) there is adequate basis to determine that an individual does not share characteristics which have come to be identified with the group; (2) the group to which he belongs never really constituted a threat; or, (3) no longer constitutes a threat.

Thus to hate the enemy during wartime would not ordinarily be considered prejudice. However, to hate a person born in the same country as that of the enemy who as an individual is an ally, does constitute prejudice. To persecute children of enemies long after the war has ended is to show prejudice. Similarly, to define all members of one's own country or race as superior is to show prejudice. To define all members of minority groups which have been persecuted as more worthy than others is to show as much prejudice as to define them as less worthy. Teachers who regard slum children with pity and want desperately to raise them out of their misery make as little headway as those who see the children as basically inferior and not worth too much effort.

This is not to say that all prejudice is inconsistent with reality—for example, the realities of the teaching situation. In fact it is hoped that teachers *will* be prejudiced with regard to their students; prejudiced in favor of them much as one is prejudiced in favor of one's family, but to a degree which enhances and does not inhibit the realization of goals of education.

The concept that allows prejudice to be classified as consistent with reality, or not consistent with reality, is that identifying one's own as superior or inferior may involve identifying others reciprocally but this does not have to be true. People can feel that their religion is best for them, and that other religions are best for others. A teacher's affection for his students may cause him to fight for their interests without desiring that any other groups suffer. Athletes can feel loyalty for their own team without devaluing their rivals.

An attraction of prejudice associated with negation of others is the easy acquisition of status. Why don't all people build status at the expense of others since it is an easy and convenient thing to do so long as there is someone who can be defined as inferior? The answer is that to do so implies the inability to realize status on one's own merits.

It may be hypothesized that a person who defines others as inferior and himself as superior has limited self confidence, a negative self image, and belongs to a threatened group and/or needs an object against whom to express hostility, and/or perceives himself as threatened by others. He can only rationalize certain methods of retaliation if the others are classified as "inferiors" (or as morally bad, or both).

People who are confident and secure within themselves, realistically oriented to their world, and not overly threatened, prefer competition with equals to competition with "inferiors." Their prejudices tend to be nonrational, judgmental evaluations on a situational and personal basis. The teacher prejudiced in favor of his students sees them as a group of individuals, each with a unique personality.

David A. Weiner is a research assistant and instructor with the Department of Sociology, University of Texas. A consultant on race relations, he has conducted several workshops in southern communities.

Overcoming prejudice: a group dynamics approach.

The Draper Projects– An Achievement in Rehabilitation

Presentation by John McKee

The Rehabilitation Research Foundation, a private, non-profit organization, is chartered to carry out programs of research and training in human development. It seeks to apply the principles of behavioral science to specific problem areas, such as rehabilitation and education of the disadvantaged.

With the cooperation of the Alabama Board of Corrections, the Foundation is currently conducting two projects at Draper Correctional Center, Elmore, Alabama, both concerned with an institutionalized offender population. The National Institute of Mental Health provides funds for operation of the experimental academic education project. A Vocational Experimental-Demonstration Project is financed under the Manpower Development and Training Act, which is administered jointly by the U. S. Departments of Labor and Health, Education and Welfare through the State Departments of Education and Industrial Relations.

Manpower Development and Training Vocational Experimental-Demonstration Project

The objective of the pilot project in vocational education is to determine how manpower training programs can be developed in a correctional setting. The project presently has a staff of 40, including qualified vocational instructors, guidance counselors, programed instruction writers, editors, public information specialists, and paraprofessional assistants. These staff members have created a special program of selection, counseling, testing, assessment, training, placement, follow-up, and community sponsorship services for youthful institutionalized offenders and have developed programed instructional materials for use in the training program.

Inmate applicants are selected on the basis of standard achievement tests, aptitude tests, personal interviews with the staff, and time remaining to be served in prison. Students who have an educational level in keeping with the requirements for classroom work in their chosen vocational field and a reasonable chance of obtaining parole soon after the completion of training are given priority. In some instances, applicants do not have the basic education required for the vocational course they want to enter, but are willing to take steps to remedy their deficiencies. In such cases, the inmates may be assigned to prevocational classes where they are given intensive, individualized instruction, utilizing programed materials. Upon completion of this training, they are enrolled in the vocational training course for which they applied.

Training is presently available in welding, electrical appliance repair, automotive service station attendant, sign painting, bricklaying, and barbering. These fields were chosen after careful consultation and study with employers and state and federal employment services.

One feature which distinguishes the Draper Vocational Education Project is programed instruction. The Draper Project has created its own programed material for use in the classroom phase of vocational training. Programed instruction is also utilized in other phases of the project: remedial education, personal-social development, and distributive education.

One of the main barriers to the offender's acceptance by society is his inability to function socially. The goal of the remedial program is to raise a man's achievement level in order that he may advance in his trade. The personal-social development classes seek to help the students develop social competence—such skills as handling money, applying for a job, relating to others, and getting along with others. Guidance counselors are available to help students with their personal or training-related problems.

When a student's parole date has been established, the job placement specialists on the staff visit employers throughout the state. Placing graduates is made difficult because students are not permitted to leave the institution for interviews, and most employers do not have the time to come to Draper. Even so, the job placement specialists, using photographs of the students and data from their files, are usually successful in placing each graduate in a training-related job.

Most paroled graduates do not have money to live on until the first paycheck comes in. Agencies such as the Tuskegee Labor Mobility Project frequently cooperate in solving this problem. This Project has made grants to graduates in amounts ranging from $65 to $145.30. These grants have aided the graduates immeasurably in making the transition from prison to community.

National Institute of Mental Health Experimental Academic Project

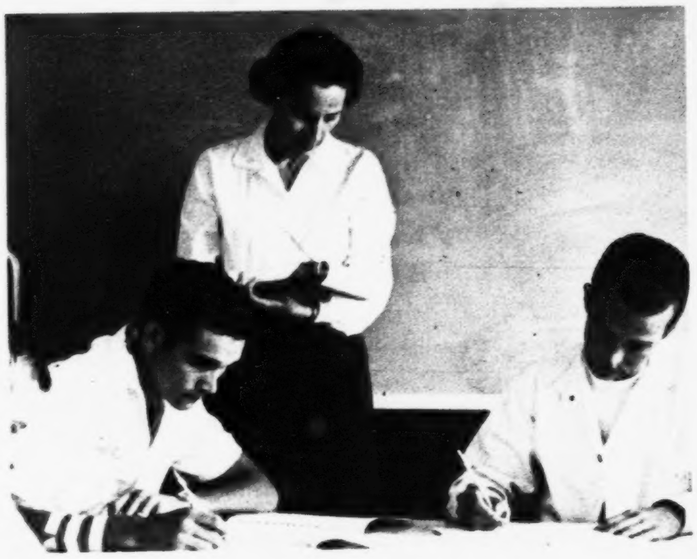
In 1961 the Division of Mental Hygiene of the Alabama State Health Department proposed to the Alabama Board of Corrections that the Board institute a program for the rehabilitation and education of youthful offenders at Draper Correctional Center. Originated by Warden John Watkins of Draper and Dr. John M. McKee, then Director of the Mental Hygiene Division, the project proposed to demonstrate the feasibility of a self-instructional education program within Draper and to make a tentative analysis of a curriculum which would teach inmates most successfully in terms of a cost-productivity relationship. The project, approved in March 1961, was financed for the first three months by the Alabama Board of Corrections. Continuing support from the prison system, the Division of Mental Hygiene, and grants from the Ford Foundation and the Aaron Norman Fund enabled the pilot project to operate for the first year. The pilot findings suggested the economic and administrative feasibility of an educational program which relied almost completely on programed instructional materials.

In May 1962, the National Institute of Mental Health approved a three-year grant to conduct a more extensive research project. The purpose of this project was to determine if the use of programed instruction could increase the educational achievement of an institutionalized offender population. The original purpose was fulfilled. As is frequently the case in such projects, a number of secondary questions were raised which warranted further exploration. A second National Institute of Mental Health grant was obtained in May

5, for three years of additional dy. The general purpose of the ewal proposal was as before, gave further attention to the nement of management and tivational techniques.

The Project has a director, a program director, and a research associate. This staff is augmented by participants in two unique programs—the College Corps and the Service Corps. College Corpsmen are undergraduates (juniors and seniors) who work on a co-op basis in the project. They provide a competent, economic source of staff while serving as role models for the inmates. One spin-off of the College Corps program has been its attraction of well-educated, qualified men to the field of corrections.

The Service Corps is composed of inmates chosen because of their cooperation and interest in the self-instructional program, as demonstrated by their achievement and willingness to help other students. It is hoped that men participating as Service Corpsmen will eventually be able to serve as educational technology assistants in other programs for the disadvantaged.



Students who have an educational level in keeping with classroom requirements have a reasonable chance of obtaining parole.

All inmate participants in the experimental academic project have been encouraged to establish worthy long-term goals for themselves. One hundred twenty students have taken and passed the General Educational Development Test for High School Equivalency; only six have failed. Seven former students are presently attending college, and one will graduate with honors in June 1967.

The staff is now seeking to identify the programed instructional materials and methods of management most successful in raising the achievement level of youthful offenders and to determine which materials and methods most successfully complement programed instruction. Another objective is to determine the best possible arrangement of learning activities appropriate to each individual's deficiency. Finally, the findings of the project will be disseminated throughout the country to provide a basis for the establishment of similar institutional programs. Our findings will also be applicable in community-based and other programs for the disadvantaged.

Dr. John M. McKee is Director of the Rehabilitation Research Foundation. He is author of numerous published and unpublished articles related to programed instruction and other innovative educational techniques.

Counseling Adults

Presentation by Nancy Schlossberg

Although adult counseling is new and fashionable, everyone working with adults readily admits that its need is widespread. However, many are easily persuaded that practically anyone can perform this necessary job. Actually the adult counselor requires special competencies.

The changing economy with its growing demand for educated workers, and the changing patterns of work and leisure are by now thoroughly recognized. They are the subject of countless articles and numerous books, with special emphasis on the problems these changing social patterns have brought about. From the labor standpoint they fall into two categories. The skilled or competent worker, professional or craft, has the problem of choosing between the many alternatives and opportunities currently existing in education and the labor market. The problem is more difficult for the less adequately craft, has the problem of choosing among the many alternatives and opportunities currently existing in education and the labor market. The problem is more difficult for the less adequately educated and trained. Because of new federally financed training programs like the Manpower Development and Training Act and the Area Redevelopment Act, many individuals are catapulted into training, jobs and careers about which they had no choice. These individuals, mostly from poverty levels, need guidance in terms of understanding their "no-choice" lot.

One consequence of the increased availability of training and educational opportunities is class mobility. We casually discuss mobility as if it were just a matter of deciding to move up or down a rung in the social structure. It is far more complex. Frequently class transition occasions personal difficulties and stresses not only in an individual, but, by extension, in his family, that further attest to the importance of professional guidance many adults feel they need. Indeed, feelings of inadequacy are great in these changing times. As Albert Thompson writes in his book, *Counseling and the Ages of Man*, "We live in an age and in a social system which makes maximum demands on our decision-making and planning abilities."

I hesitate to summarize needed counselor competencies because I fear that the would-be counselor will see these as a list of easily acquired techniques. Therefore, only one or two points will be made to illustrate the special competencies that counselors of adults should have.

First and foremost, we need to understand the nature of the adult. I noticed that at both summer conferences on adult development at Wayne State University, questions from participants concerned the techniques of counseling rather than the nature of the adult. The problem, of course, is that most developmental psychologists take us through the 20th to 25th year, leave us, then pick us up again at 65. One would surmise that people between 30 and 60 are not developing, but just moving along a pre-determined road. Yet, there has been some research into the adult years. It can be classified into reports showing how adults continue to develop as well as how they decline and disengage. The counselor of adults must search for and study all relevant material on adult development.

Secondly, all of us working with adults must be aware of the difference between counseling and guidance. Adult guidance is the broad term and includes counseling as one aspect. Those helping adults in their search for meaning and direction to their lives can be considered as working in the field of adult guidance. The person who develops a list of referral resources for adults, the person who builds vocational-educational libraries for adults, the person who works out developmental and educational programs would be in adult guidance.

The counselor, however, is the person with advanced training in counseling which has included special attention to what Bernice Neugarten calls "the salient issues of adulthood"—self-confrontation about one's own age biases (i.e., Do you think a woman 60 is too old to go to school; to enter a training program, etc.), familiarity with emerging opportunities for adults and understanding of the relationship of work—self concept. Two definitions of adult counseling are offered. According to Esther Westervelt, "Counseling is the process of helping an individual to understand himself, his situation, and the relationship between the two in order that he may maintain healthy development, directed to goals of his own choosing." Another definition by Goldie Kabach is helpful: "The counselor serves as a supporting agent as the counselee takes a new look at old issues regarding skills and training, or examines conflicting relationships with associates at work or in the home."

The problem is that anyone who works with adults considers himself a counselor. This is compounded by the lack of special training for adult-counselors, and the inadequacy of their numbers.

There is a slow process followed by guidance and counseling departments which are turning their time and energy to training a few adult-counselors and there are crash programs which are turning out large numbers of para-professional guidance workers. The answer to the dilemma lies somewhere in between. I would like to see some crash training institutes where experienced counselors can receive special training in adult-counseling. These specially trained counselors could in turn begin training others, as well as a new corps of para-professionals.

Counseling is one aspect of adult guidance.

The need to counsel adults exists. The need for trained counselors exists, and also the need for guidance workers in many adult programs. The dilemma stems from lack of manpower and lack of knowledge about the important adult years.

Dr. Nancy Schlossberg is Assistant Professor, Department of Guidance and Counseling, Wayne State University. An authority in her field, she has published several articles and has served with Howard University, Pratt Institute, and Columbia Teachers College.

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esentation by Gerald A. Foster

Small discussion groups were n integral part of every ABE eacher training institute last year. t seems reasonable to assume that mall groups organized for iscussion purposes will again be tilized in this summer's institute rograms. However loosely tructured, each group will have a efinite topic; each will have a efined purpose. In planning for hese group discussions, a number f factors should be considered. his morning I will offer several tems which you should consider, hat you should come to grips with, bout which you should make ecisions prior to the convening f small groups.

Following these brief comments, will ask for volunteers to meet with me to demonstrate one type f small group discussion. Group emonstration and involvement, ike the weather, is something we alk about a good deal, but omething we unfortunately do ittle about.

As you arrived this morning, I distributed to you an outline of the comments I am going to make concerning small group discussions. As this outline suggests, I feel that before you establish small groups, you must define the group, outline its purpose, establish its dynamics, and decide techniques to increase group participation. Before we conduct a demonstration, I should like to elaborate briefly on each of these points.

In defining your group, you should consider its size, membership, and permanency as major points. The size should be large enough to solicit a variety of thinking about the topic under consideration, but not so large as to inhibit participation of the total membership on a rather frequent basis. I would suggest a group of no less than six nor more than ten or twelve.

Small discussion groups should be an integral part of every ABE institute.

Some rationale should underlie the selection of members to a group. If a specific topic is to be discussed, participants should be selected because they have, minimally, an interest in the subject and preferably because they have had some experience in the field under consideration (whenever this can be ascertained in advance). The more varied the competent opinions being voiced, the more stimulating the discussion and the more constructive and comprehensive the group's recommendations, if any.

It is also important in selecting a group, to determine whether the meeting of the membership is to be a "one-shot" or whether the group will be on-going over a period of time. In other words, if the topic is of continuing interest, the first discussion may be regarded as a stepping-off point, either because the topic cannot be conclusively dealt with at one sitting, or because the subject will entail developments which should be coped with as time goes on.

The purpose of the group should be clearly defined. It may be for the purpose of, but not limited to, making decisions, exploring experiences and interpersonal relations, and/or changing the attitudes of the membership. In many cases, it is wise to determine the purpose of the group before the membership is selected. If the discussion is to serve a worthwhile purpose, it must be determined in advance whether the subject is one which is merely to be aired, or whether the group is to come up with a definite conclusion, decision, or recommendation. Quite obviously, if the latter is the case, a decision needs to be reached regarding the degree of expertise possessed by the group if their conclusions or recommendations are to be accepted by the general membership of the insitute and, by extension, the community at large or other bodies who might be called upon to evaluate their deliberations.

Additionally, one might expect the group to be flexible enough to change attitudes, or to yield or modify their opinions, in order to reach consensus on the ultimate decision or recommendation. The structuring of the membership may not be so necessary if the purpose is to change attitudes and to share experiences and perceptions or feelings related to them. In such instances, other elements assume higher priority than the expertise in the topic areas; elements which are more related to techniques, such as the establishment of rapport and the reduction or removal of any threat the participants may regard as aimed at comments they may wish to make concerning their attitudes or experiences.

In most instances a group needs leadership and controls of some type. Whether leadership is imposed upon the membership or is left to evolve from the interaction of the group members is in part dependent upon the make-up of the group and the purpose of the meeting. If the group is convened to reach a decision, for example, the leadership is generally imposed upon the group and this leader sets the controls for the relevancy of discussion. If, on the other hand, the group is meeting for the purpose of sharing experiences and interpersonal relations, the leadership and control may quite possibly evolve through group participation. In any event, at the start of a group discussion someone needs to define the purpose of the meeting and how the concepts of leadership and control are to be handled.

Many times, for one reason or another, some groups never seem to get off the ground in terms of participation of the membership. An astute group leader will attempt to make the members feel they are equal participants rather than respondents. Free and open discussion should be permitted and encouraged so long as it revolves around the topic and the purpose of the discussion. It is essential, however, that group discussions have certain constraints, in contras to restraints, or the discussion could easily become chaotic, resulting sometimes in personality clashes which serve only to impede the progress.

Rarely can one assemble a grou so involved in a topic that the discussion takes off by itself and continues under its own steam for a long period of time. When discussion lags a number of techniques may be employed as stimulants. Dramatizing elements of the discussion can provoke participation; extending the discussion into broader areas or phases not immediate to but allie with the topic may animate opinions; and related films, recordings, and speakers with special expertise may stimulate the group members. It must be tressed that the skill of the leader hould be the most important ngredient for on-going successful roup interaction. If he sets himself p as the authority figure, he is nost likely to inhibit the free flow f information and opinions from he members. He should, at all imes, make each member of the roup feel as though his comments re welcomed and valuable and hat he is there to make a contribution to the whole, not merely as an onlooker or an nterested listener.

In addition to the topics I have discussed, a number of other considerations which could be categorized as miscellaneous need to be given attention prior to the establishment of a small group. I am referring to such things as seating arrangements, length of the sessions, addition of new members, and end-of-session summaries. The seating arrangement may subtly suggest the tone of the group discussion. If the group is merely to talk about the subject, whether for mutual enlightenment or because the topic has current interest, the group may be seated informally. But if the discussion is for the purpose of making decisions or recommendations, a more formal seating arrangement may convey the nature of the business at hand. Even pads for note taking may be given to the participants. The length of the sessions should be specified, but enough flexibility should be allowed to permit the completion of a topic that may be under intensive discussion. A fatigue factor may set in if sessions are too long, thus reducing the effective productivity of group members. As a suggestion, forty minutes to an hour seems adequate. However, if the discussion seems to lag or the topics appear to have been covered adequately, do not keep the group in session simply for the sake of satisfying some arbitrarily pre-determined time period. This can seriously affect morale.

If a group is to meet again the determination can be made whether to proceed with the same group composition or to add new members. It might be advisable to bring in new people whose experience would make a valuable contribution to the discussion as it has developed during previous sessions. If the decision to add new members is made, they should be thoroughly briefed on the previous discussion. This brings up the item of whether or not to summarize at the end of each session. My own experience indicates that it is a worthwhile procedure regardless of the type or purpose of the group. This summary not only clarifies what was perceived to have been said so that necessary corrections can be made while the material is fresh in everyone's mind, but also would serve as a bridge to start the next session, if there is one.

In summary, I feel that prior to assembling a group for discussion purposes, the instigator needs to come to grips with a number of issues. Some of these issues are: 1) the definition of the group, 2) purpose of the group, 3) the dynamics of the group, 4) techniques to increase participation, and 5) miscellaneous topics.

I want to thank you for your attention and now if I may have five volunteers, I would like to demonstrate for the others one type of small group discussion.

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